Report on the global HIV/AIDS epidemic

2002

Joint United Nations Programme on HIV/AIDS
UNAIDS
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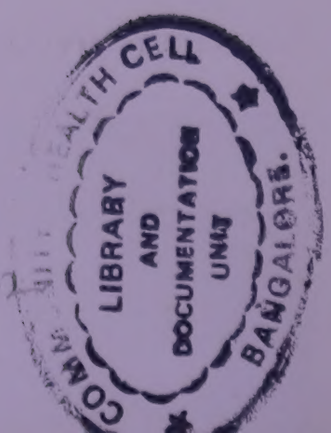

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Acknowledgements

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Preface

In 2001, the world marked 20 years of AIDS. It was an occasion to lament the fact that the epidemic has turned out to be far worse than predicted, saying "*if only we knew then what we know now*". But we do know now. We know the epidemic is still in its early stages, that effective responses are possible but only when they are politically backed and full-scale, and that unless more is done today and tomorrow, the epidemic will continue to grow.

This report presents the considered views on the state of the HIV/AIDS epidemic of the Joint United Nations Programme on HIV/AIDS (UNAIDS), which is comprised of eight United Nations system agencies. It also presents evidence of the responses to the epidemic mounted by many partners, including governments, the business sector and civil society.

The report provides positive proof that HIV, if left to run its natural course, will cause devastation on an unprecedented scale. One by one, dangerous myths of complacency are being shattered.

In southern Africa, HIV prevalence has not yet stabilized at some natural limit. HIV rates are still on the rise, with HIV infections occurring among more than 40% of all pregnant women, in some locations. In West Africa, apparent stability at lower levels has also turned out to be an illusion, with the epidemic now taking off again. This report refutes the comfortable assumption that parts of Asia were somehow immune to HIV. Indonesia, for example, having seen almost no HIV until now, despite predictable risk factors, finds itself with a growing epidemic. In Eastern Europe and Central Asia, the assumption that the epidemic would remain confined to marginalized groups, such as injecting drug users, is turning out to be the worst sort of wishful thinking. An explosive rate of growth is having its inevitable consequence of population-wide spread. And, in high-income countries, where reduced AIDS mortality has made headlines in recent years, increases in unsafe sex and in HIV infections have crept up almost unnoticed.

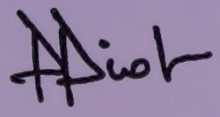
While inaction has proved to be a deadly mistake, the evidence has never been stronger that action against AIDS gets positive results. This report has many examples of success—communities organizing themselves, school and workplace HIV/AIDS programmes, outstanding national leadership, and new tools (from human rights instruments to antiretroviral treatments) being deployed against the epidemic. Two populations stand out as crucial

in determining success: young people, because they have led the struggle to change behaviours and norms, because they are disproportionately affected by the epidemic and because the future depends on their sustaining change; and people living with HIV/AIDS—young and old, men and women—not only because their lives are on the line, but also because they are the greatest untapped resource with which to fight the epidemic.

The successes reported here must be tempered with realism about the challenges ahead. Pre-eminent among them is the challenge of care. The evidence presented here could not be starker: where care is most needed it is least accessible. The agenda for building the capacity to extend care to all who need it is clearly presented. And, across prevention and care, the case for boosting resources is compellingly made.

Half-measures and piecemeal responses do not work. An agenda for change has been embraced by the United Nations, and by all the nations of the world when they endorsed the Declaration of Commitment at the UN General Assembly Special Session on HIV/AIDS in June 2001.

The time has come to put all the pieces together. Plans have been made. Needs are clear. Solutions are available. Leadership is gathering momentum. Now act!



Peter Piot
Executive Director
Joint United Nations Programme on HIV/AIDS

Global estimates of HIV/AIDS epidemic as of end 2001

Total number of adults and children living with HIV/AIDS: 40 million

People newly infected with HIV in 2001	**Total**	**5 million**
	Adults	4.2 million
	Women	*2 million*
	Children <15 years	800 000
Number of people living with HIV/AIDS	**Total**	**40 million**
	Adults	37.1 million
	Women	*18.5 million*
	Children <15 years	3 million
AIDS deaths in 2001	**Total**	**3 million**
	Adults	2.4 million
	Women	*1.1 million*
	Children <15 years	580 000
Total number of children orphaned by AIDS, and living, end 2001**		**14 million**

**Defined as children aged 0–14, as of end 2001, who have lost one or both parents to AIDS.

Fighting AIDS: a new global resolve

1 Fighting AIDS: a new global resolve

In the past two years, the sense of common purpose in the worldwide struggle against HIV/AIDS has intensified. More than at any other time in the short history of the epidemic, the need to translate local and national examples of success into a global movement has become manifest.

The political momentum to tackle AIDS has grown. Public opinion in many countries has been mobilized by the media, nongovernmental organizations, activists, doctors, economists, and people living with HIV/AIDS. Communities and nations are progressively taking the lead in responding to the epidemic with increased political commitment, resources and institutional initiatives. But this new political resolve is not universal. An unacceptable number of governments and civil society institutions are still in a state of denial about the HIV/AIDS epidemic, and are failing to act to prevent its further spread or alleviate its impact.

By failing to act, governments and civil society are turning their backs on the possibility of success against AIDS. Where the moment of action has been seized, there is mounting evidence of inroads being made against the epidemic. Alongside the familiar achievements of Senegal, Thailand and Uganda, there are new successes on every continent. Despite emerging from genocide and conflict, Cambodia responded to the threat of HIV in the mid-1990s and has achieved marked declines in both the levels of HIV and the high-risk behaviours associated with its transmission. The infection rate among pregnant women in Cambodia declined by almost a third between 1997 and 2000. The Philippines has acted early to forestall the epidemic, keeping HIV rates low with strong prevention efforts and the mobilization of community and business organizations.

Brazil remains a leading example of the integration of comprehensive care and a renewed commitment to prevention. The numbers of new HIV infections have been kept much lower than forecast less than a decade ago, while the 1996 decision to establish a legal right to free medication has brought treatment and care to more than 100 000 HIV-positive people. As a result, the number of annual AIDS deaths in Brazil in 2000 was a third of that in 1996. The annual cost of medication (including drugs produced under licence by Brazilian manufacturers) is more than outweighed by the resulting health-care and related savings. Similar legislation-led drug-access models are being pursued across Central and South America.

In Africa, Zambia's focus on HIV prevention among youth and its efforts to involve businesses, farmers, schools and religious groups

in the fight against AIDS are proving successful. The proportion of pregnant urban women aged 15–19 who were HIV-positive had fallen from 28.4% in 1993 to less than 14.8% five years later.

Examples of success come both from settings where HIV prevalence is low (and an expanding epidemic has been prevented) and from those where the impact of HIV/AIDS is already substantial. Both environments present challenges. Even where rapid increases in the epidemic are evident, yet population-wide prevalence is low, it is all too easy to marginalize HIV. For example, in the Russian Federation, the realization that the epidemic is taking hold among young people, and is not just affecting a stereotyped and stigmatized group of 'drug addicts' has been an important impetus for strengthening the national response. In heavily affected countries (e.g., in southern Africa), the challenge has been that of building the political conviction that solutions are possible in the face of the overwhelming impact of the epidemic.

Civil society and government commitment

Growing political engagement in the response to AIDS is grounded in two decades of AIDS activism, led by individuals and communities whose lives have been touched by the epidemic. Organizations as diverse as the Gay Men's Health Crisis in New York, The AIDS Support Organisation in Uganda, the Save Your Generation Association in Ethiopia, Grupo Pela Vidda in Rio de Janeiro, and many hundreds of others like them, are built on the same foundations: an initially small group of people responding to the impact of AIDS by coming together to provide mutual support and take action.

An activist movement responding to AIDS now exists globally. It has many aspects: community groups providing home-based care, treatment activists working through media and the law courts to extend access to HIV drugs, networks such as the International Council of AIDS Service Organizations and its regional bodies, and associations of HIV-positive people nationally and internationally, together with positive women's networks.

The presence of nongovernmental and community-based organizations was notable at the United Nations General Assembly Special Session on HIV/AIDS in June 2001, providing a sense of urgency and conscience to Member State deliberations. The Global Fund to Fight AIDS, Tuberculosis and Malaria has modelled a new way of working by including on its Board not only nongovernmental organization representatives but also a seat for people who are themselves directly affected. The bedrock of activism, sustained in communities motivated to take action against AIDS, is key in driving political momentum locally, nationally and globally.

From within the United Nations, Secretary-General Kofi Annan has helped catalyse growing global engagement. In April 2001, at the African Summit on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases, in Abuja, Nigeria, he issued a global call to action in the fight against AIDS. The personal priority he has given to AIDS has helped energize the United Nations system, as well as engage political and business leaders in the challenge.

At the Millennium Summit of the United Nations in September 2000, 43 Heads of State and Government, from both countries heavily affected and those less so, referred to AIDS as one of the most pressing problems worldwide. Presidents and prime ministers, particularly those from Africa and the Caribbean, but also those in Asia and Western and Eastern Europe, are displaying a personal commitment to the fight against AIDS. Support for expanded AIDS responses has been voiced by religious leaders and groups of all faiths—from Catholic and Protestant bishops and the Patriarch of All Russia, to associations of Imams and networks of Buddhist monks in South-East Asia.

AIDS is now a prominent issue at international gatherings—North and South. It has been on the agenda of summits and decision-making forums of the G8 and G77 nations, the Organization of American States, the Organization of African Unity, the Commonwealth of Nations, the European Union, the Association of South-East Asian Nations, and the Caribbean Community Secretariat (CARICOM). Both the World Economic Forum and the World Social Forum (in Porto Alegre) have held key sessions on AIDS and its global implications. The UN Security Council held its first-ever debate on AIDS in January 2000—the first time it had examined a health or development issue. Since then, it has held two more public debates on AIDS.

Global priorities are now clear

The new political momentum culminated in June 2001 when the membership of the United Nations met in a Special Session of the General Assembly to agree on a comprehensive and coordinated global response to the AIDS crisis. The members adopted a powerful Declaration of Commitment, and reaffirmed the pledge (made by world leaders in their Millennium Declaration) to halt and begin to reverse the spread of AIDS by 2015.

The UN General Assembly Special Session on HIV/AIDS differed from the hundreds of meetings and summits held on AIDS in the past 20 years in this crucial respect: it was a meeting of all States, acting as governments. As such, it yielded both a common mandate and a basis for political accountability. The Special Session's Declaration of Commitment, adopted unanimously, now serves as a benchmark for global action. Its targets and goals include the need to:

- secure more resources to fight AIDS, increasing annual spending to US$7–10 billion in low- and middle-income countries;
- ensure, by 2005, that a wide range of prevention programmes are available in all countries;
- by 2005, to ensure that at least 90% of young people aged 15–24 have access to information, education and services necessary to develop the life skills needed to reduce their vulnerability to HIV, and 95% by 2010;
- reduce by 25% the rate of HIV infection among young people aged 15–24 in the

most affected countries by 2005 and globally by 2010;

- reduce by 20% by 2005 and 50% by 2010 the proportion of infants born with HIV;
- by 2003, enact or strengthen anti-discrimination and human rights protections for people living with HIV/AIDS and for vulnerable groups;
- by 2003, develop or strengthen participatory programmes to protect the health of those most affected by HIV/AIDS;
- empower women as an essential part of reducing vulnerability to HIV;
- by 2003, develop national strategies to strengthen health-care systems and address factors affecting the provision of HIV-related drugs, including affordability and pricing; and
- make treatment and care for people with HIV/AIDS as fundamental to the AIDS response as is prevention.

Debate at the Special Session on HIV/AIDS revealed continuing differences between States on how to respond to marginalized groups, such as men who have sex with men, injecting drug users and sex workers. Nevertheless, the Declaration expressed unanimous approval of fundamental approaches to tackling the epidemic, based on frank and forthright responses grounded in respect for human rights.

The Declaration of Commitment provides the world with a basis for effective political action and a yardstick of accountability. At international, regional and national gatherings since the Special Session, the Declaration of Commitment has served to define agendas and create a common platform for action. Within weeks of the Special Session, implementation of the Declaration of Commitment was receiving regional attention—for example, in the Nassau Declaration on Health issued by Heads of Government of the Caribbean Community, and in regional action taken in the Commonwealth of Independent States.

Indicators, developed by the UNAIDS Secretariat and Cosponsors, together with other stakeholders, will keep track of progress on all the key elements of the Declaration of Commitment. The UN Secretary-General will report annually to the General Assembly on progress made in relation to the Declaration.

Meeting targets

Table 1 details the most recent baseline measures for the 25 worst-affected countries in the world, in relation to targets set in the Declaration of Commitment. These measures indicate current levels of HIV among young people, and show that young people's knowledge and awareness of HIV/AIDS will need to increase considerably if the relevant targets are to be met. The measures also reveal that levels of risky behaviour are relatively high (especially among men), while protective behaviour is generally low among men and women—areas in which substantial progress needs to be made.

The targeted reductions in the proportion of infants infected with HIV, as Table 1 reminds, can only be met if women's access to HIV testing increases significantly. Finally, the rate at which orphans attend school highlights another area where progress is required, since that rate is also an indicator of the degree to which orphans are receiving wider forms of support.

Complementing the Declaration of Commitment, a single United Nations system stra-

Table 1

Measuring progress towards the targets established at the United Nations General Assemb prevention and impact indicators in countries with high HIV prevalence*

	HIV prevalence among pregnant women (aged 15–24)						Prevention				
	Major urban areas			Outside major urban areas			Knowledge/awareness among young people				
Country	Year *b*	Pregnant women (15–19) *Median c*	Pregnant women (20–24) *Median d*	Year *e*	Pregnant women (15–19) *Median f*	Pregnant women (20–24) *Median g*	Heard of AIDS Female (15–24) *h*	Condom use Female (15–24) *i*	One faithful partner Female (15–24) *j*	Aware that 'healthy-looking' person can be infected Female (15–24) *k*	Has no major mis-conceptions Female (15–24) *l*
Angola	...	...	...	...	70	30	30	43	17		
Botswana	2001 [3]	27.1	34.9	2001 [19]	26.6	46.9	95	76	74	79	35
Burkina Faso	1998 [1]	6.2	8.8	...	...	84	...	...	42	...	
Burundi	1998 [1]	8.8	15.4	1998 [1]	24	14.3	85	47	71	66	36
Cameroon	2000 [5]	9.5	11.2	2000 [22]	9.3	14.1	90	46	51	54	23
Central African Rep.	...	...	...	...	...	...	...	46	...		
Congo	2000 [u]	11	...	...	...	...	...	...	...	...	
Côte d'Ivoire	1998 [3]	4.7	12.2	1997 [9]	7.5	12.1	93	53	55	51	21
Ethiopia	2000 [4]	8.9	17.6	2000 [3]	0	4.3	82	37	62	39	...
Haiti	2000 [n]	3.7	3.8	2000 [n]	3.7	3.8	97	52	56	68	...
Kenya	1997 [1]	12.5	16.2	...	...	90	53	75	65	59	
Lesotho	1999 [n]	~ 25	~ 41	1999 [n]	~ 25	~ 41	81	58	50	46	22
Liberia	...	...	...	...	63 *y*	49 *a*	44 *a*	31 a	...		
Malawi	2001 [3]	13.6	25.7	2001 [16]	10.2	20.3	99	78	80	84	...
Mozambique	2000 [2]	13	14.7	2000 [18]	6.3	13.7	83	...	...	38	...
Namibia	2000 [n]	11.9	20.3	2000 [n]	11.9	20.3	98	87	77	...	...
Nigeria	2000 [n]	3	5.8	2000 [n]	3	5.8	75	15	44	45	...
Rwanda	1999 [4]	8.4	12.8	1999 [6]	4.2	7.6	99	68	75	23	...
Sierra Leone	...	...	...	...	59	30	32	35	21		
South Africa	2000 [n]	16.1	29.1	2000 [n]	16.1	29.1	95 *y*	...	...	< 50 y	...
Swaziland	2000 [u]	22	42.2	2000 [3]	30.1	42.5	97	63	61	81	43
United Rep. of Tanzania	2000 [3]	13.2 z		2000 [9]	16.3 z		96	62	64	65	35
Togo	...	...	...	...	96	63	74	67	27		
Zambia	1998 [4]	16.7	26.8	1998 [18]	6	17.5	96	59	78	75	40
Zimbabwe	2000 [u]	27.1	34.8	2000 [r]	28.4	35.3	96	73	73	74	...

* See Annex 2 for key to letters and numbers used after figures.

Special Session on HIV/AIDS in June 2001: baseline measurements of HIV prevalence,

Prevention								Impact	
High-risk sex in past year		Reported condom use at last high-risk sex		Prevention of mother-to-child transmission				Orphans	
Male (15–59) *m*	Female (15–49) *n*	Male (15–59) *o*	Female (15–49) *p*	Knowledge of MTCT Female *q*	Know a place to get tested *Female r*	Number of pregnant women HIV+ *s*	Antenatal care coverage (15–49) *t*	Children orphaned by AIDS (0–14) *u*	Orphans in School[v] Orphan attendance rate as a % of non-orphan attendance rate
...	...	...	...	48	23	40,000	...	104,000	89
...	...	...	...	81	47	22,000	97	69,000	99
28	8	59	42	45	...	47,000	61	268,000	...
...	...	...	...	81	27	40,000	76	237,000	69
55	28	5	3	63	58	74,000	75	210,000	92
...	...	...	...	45	26	20,000	62	107,000	89
70	43	...	12	...	...	11,000	...	78,000	...
87	30	12	1	65	19	60,000	88	420,000	77
21	8	30	13	57	...	220,000	27	989,000	60
55	32	26	14	72	22	...	80	43,000	82
45	20	42	16	85	...	180,000	76	892,000	75
...	...	...	...	62	...	25,000	88	73,000	89
...	...	...	...	...	...	12,000	85	39,000	...
37	9	39	29	77	70	100,000	92	468,000	92
59	...	...	4	...	...	130,000	71	418,000	46
...	...	...	...	...	79	17,000	91	47,000	...
...	...	...	...	40	...	270,000	64	995,000	...
12	7	50	15	88	45	47,000	92	264,000	93
...	...	...	...	37	9	18,000	68	42,000	74
...	...	...	...	...	...	260,000	94	662,000	...
...	...	...	...	72	60	13,000	87	35,000	86
52	29	34	23	74	52	120,000	49	815,000	72
35	16	37	17	73	...	13,000	82	63,000	92
43	29	30	18	88	59	110,000	83	572,000	88
43	16	70	42	84	43	170,000	93	782,000	85

tegic plan was adopted for the first time in 2001, bringing together within the UN not only UNAIDS and its Cosponsors, but HIV/AIDS activities from a total of 29 UN organizations and agencies. A significant achievement in increased transparency and coordination, this plan will guide the UN system over the next five years.

Paradigm shifts

Underpinning the renewed global resolve in tackling AIDS is a series of shifts in fundamental thinking about the epidemic.

Firstly, we now realize that the HIV/AIDS epidemic is at an early stage of development and that its long-term evolution is still unclear. Despite the epidemic's manifest potential for explosive growth within a matter of years, its overall dynamic needs to be considered in a time frame of decades.

Secondly, successful, proven approaches to HIV prevention have been identified, and the need for a particular emphasis on young people has been recognized. In every country where HIV transmission has been reduced, it has been among young people (and with their determination) that the most spectacular reductions have occurred.

Thirdly, community mobilization is the core strategy on which success against HIV has been built. Fostering such mobilization requires eliminating stigma, developing partnerships between social and government actors, and systematically involving communities and individuals infected and affected by HIV/AIDS.

Fourthly, access to comprehensive care and treatment for HIV/AIDS is not an optional luxury in global responses. Access to care is a basic necessity in programming in every setting—from the wealthiest to the poorest—and needs to encompass the full continuum, including home-based and palliative care, treatment of opportunistic infections and antiretroviral therapy.

Responding to demands for more equitable access to care is integral to creating broad, demand-driven strategies that respond to the desire by households and communities to protect themselves from HIV and its effects. Demand-driven HIV prevention is likely to succeed far more readily than supply-driven approaches.

Fifthly, addressing the economic, political, social and cultural factors that render individuals and communities vulnerable to HIV/AIDS is crucial to a sustainable and expanded international response.

The Millennium Development Goals, arising from the UN Millennium Summit of September 2000, include a commitment to halt and begin to reverse the global spread of AIDS by 2015. They also include the following goals: to halve global poverty; ensure primary-school education for all; promote gender equality and empower women; and reduce child mortality while improving maternal health. This total package is integral to success in alleviating the impact of AIDS.

Finally, lack of capacity to absorb increased resources allocated for HIV/AIDS, while posing

challenges, is no reason to delay the boosting of responses in countries expressing commitment to an expanded response. Assessments of programme readiness carried out by UNAIDS, together with rapid responses to calls for proposals from the new Global Fund to Fight AIDS, Tuberculosis and Malaria, are both demonstrations of immediate and substantial unmet needs in AIDS programming in much of the world.

Building new capacity for success

Partnerships are emerging in response to AIDS, with increased involvement across the whole of government as well as between governments, civil society and the business sector. Trade unions and women's and youth organizations are engaging in AIDS-related activities, often for the first time. Business coalitions on AIDS have spread, especially in Asia and Africa. Globally, businesses have recognized the need for a proactive AIDS agenda, and efforts in this direction are being spearheaded by the Global Business Council on AIDS.

The International Labour Organization (ILO) became UNAIDS' eighth Cosponsor in 2001. It has engineered a new code of conduct designed to protect and support workers with HIV/AIDS and to use workplaces more effectively in the fight against AIDS (see 'Focus: AIDS and the world of work'). Meanwhile, philanthropic foundations, such as the Bill and Melinda Gates Foundation, are making increasingly imaginative and generous contributions—both financial and intellectual—in prevention, in supporting care access, in reducing mother-to-child transmission, and in the search for a vaccine, among others.

Emergency responses, whether to conflict or disaster, are beginning to deal with AIDS more effectively in emergency settings, be they refugee camps or war-torn zones. The World Food Programme is lending its support to AIDS responses in its field of operations, while the International Federation of Red Cross and Red Crescent Societies has begun to tackle AIDS-related stigma, starting with its workers and volunteers.

The new paradigm in access to care is beginning to take effect, and long-standing global inequities are being challenged. From disputes before the World Trade Organization, to court cases in South Africa, debate in relation to essential medicines has been resolved in favour of lowering trade barriers to access. The principle of preferential pricing for HIV drugs for low- and middle-income countries has been largely accepted in the pharmaceutical industry. Prices have begun to drop and countries' rights to invoke compulsory or voluntary licensing arrangements on patented drugs and medications were affirmed clearly at the World Trade Organization meeting in Doha, Qatar, in late 2001. Generic versions of many antiretroviral drugs now exist. The World Health Organization has begun a process of quality assessment of HIV medicines (brand-name and generic) and is widely publishing the results in order to promote the rational use of drugs as well as affordable prices.

In Africa, where the gap between needs and resources is greatest, advances are being made in the wealthier countries (such as Botswana, Gabon and Nigeria); in those countries still

with relatively small HIV-positive populations (such as Senegal); and by building outwards from existing capital-city infrastructure (in countries such as Uganda).

Important progress has been made in the prevention of mother-to-child transmission. New guidelines on antiretroviral therapy and infant-feeding for HIV-infected mothers have been developed. Manufacturer Boehringer Ingelheim's offer, in July 2001, of free nevirapine for low- and middle-income countries is gradually being taken up. But this also means that voluntary counselling and testing need to go beyond the 1% of women in sub-Saharan Africa currently being reached. Antenatal care infrastructure has to expand. And safe infant-feeding by HIV-infected mothers must become an actual choice, rather than a theoretical one. Much work remains to be done, however, in transforming the successes of small pilot projects into large-scale programmes.

As with the epidemic in general, access to HIV treatment also has governance and security dimensions. Even in the poorest countries, in urban areas, in particular, there is already a huge backlog in demand for HIV treatment. If treatment remains inaccessible, or if it is only extended to small elites, social tension might be further inflamed. Already, AIDS 'miracle cures' have given rise to local instability in India, Nigeria, Thailand and elsewhere.

Paying the bill

There has been a sea change in the understanding of the resources that are needed for an effective global response and in how to generate those funds. As agreed at the UN General Assembly, it is now clear that AIDS-related spending needs to rise to US$7–10 billion to meet the main prevention and care needs of low- and middle-income countries (see 'Meeting the need' chapter).

In creating optimal conditions for national governments to increase their AIDS efforts, more funds need to be liberated through debt relief or debt cancellation. But there is also no escaping the need for the world's high-income countries to step up their support for the world's poorer countries.

The International Conference on Financing for Development, held in Monterrey, Mexico, in March 2002, ended with a strong call to eradicate poverty, achieve sustained economic growth and promote sustainable development in the context of a fully inclusive and equitable global economic system. Its consensus statement called for substantially increased international development assistance, and pledges of increased funding were made by a number of nations. The Conference recognized the interconnectedness of domestic development, international development resources and foreign direct investment, international trade, international financial and technical cooperation, and external debt. It endorsed innovation in debt relief, as well as debt cancellation, where appropriate.

As was recognized in Conference discussions, the impacts of HIV are intimately connected with this emerging agenda of greater international coherence in financing for development. In the worst affected countries, AIDS has wiped out 50 years of development gains,

measured in terms of improved life expectancy. By the same token, strengthening domestic and international financing capacities and cooperation, ranging from improved governance, to increased resource flows and more stable economic conditions, are core strategies for reducing HIV-related vulnerability and the impact of the epidemic.

Global challenges

Huge global challenges still shape the context in which the world confronts the epidemic. Failure to control AIDS is an index of inequitable development and poor governance. Income inequality, gender inequality, labour migration, conflict and refugee movement all promote the spread of HIV.

Despite the widely recognized benefits of globalization, more than a billion of the world's 6 billion people still cannot fulfil their basic needs for food, water, sanitation, health care, housing and education. Worldwide, an estimated 1.1 billion people are malnourished. An estimated 1.2 billion people live on less than US$1 a day. In more than 30 of the poorest national economies (most of them in sub-Saharan Africa), real per capita incomes have been declining since the early 1980s. At the same time, pressures on States to provide basic services and infrastructure have not eased. The HIV/AIDS epidemic, along with other diseases, conflicts and droughts, is worsening matters further.

But the global response to AIDS shows that the negative effects of globalization need not be 'facts of life'. Greater access to high-income countries' markets, debt relief and more development aid will go a long way towards enabling countries to reduce poverty. High-income countries spent more than US$300 billion in 2001 on agricultural subsidies—roughly equivalent to the combined gross domestic product of all of sub-Saharan Africa. It is clear that AIDS represents a long and devastating tale of exclusion for millions of people, with or without HIV infection.

The expanding AIDS epidemic provides a compelling case for accelerating much-needed global reform in an effort to better support local responses. This can be done by:

- creating stronger international cooperation, guided by the principles of human rights;
- generating more accountability and transparency of international institutions;
- replenishing national capabilities to safeguard the right to health (including the provision of HIV prevention, access to HIV care or the development of a HIV vaccine), and enlisting the help of the business sector in such efforts;
- redressing global poverty (a driving force of the AIDS epidemic) by, among other things, increasing Official Development Assistance to at least 0.7% of gross national product (a level first agreed to by the international community in 1969 and since endorsed repeatedly, including at the 2002 Monterrey International Conference on Financing for Development); and

- above all, setting new rules of the game to ensure a more equitable distribution of the fruits of globalization.

It is true that the world cannot afford to wait until the perfect conditions exist before acting against AIDS. The fight against AIDS cannot go on hold until human security is achieved and poverty is eliminated. As Graça Machel said in her appeal to leaders at the African Development Forum 2000, "How would you react if you were told that, of your five children, two would die prematurely, but that you still had a chance to stop their deaths? Which parent wouldn't mobilize all of their financial, emotional and human resources and act immediately?" At the same time, the growing global response to AIDS needs to be bolstered by stronger human security, equality and justice. In the long run, success in the struggle against the epidemic requires a global community that acts on the basis of human concern and humane values.

There is no blueprint for bringing the epidemic under control. But the past 20 years have seen the development of tools and knowledge that we know can result in success. The world now has a road map for the fight against AIDS. Time will tell how well it is used.

2

A global overview of the epidemic

A global overview of the epidemic

2

The scale of the AIDS crisis now outstrips even the worst-case scenarios of a decade ago. Dozens of countries are already in the grip of serious HIV/AIDS epidemics, and many more are on the brink.

Around the world, an estimated 5 million people became infected in 2001, 800 000 of them children. Over the next decade, without effective treatment and care, they will join the ranks of the more-than-20 million people who have died of AIDS since the first clinical evidence of HIV/AIDS was reported in 1981. It is equally clear that the vast majority of people (including those living in countries with high national HIV prevalence) have not yet acquired the virus. Enabling them to protect themselves against HIV, and providing adequate and affordable treatment and care to people living with the virus, represent two of the biggest challenges facing humankind today.

Sub-Saharan Africa

HIV/AIDS marks a severe development crisis in sub-Saharan Africa, which remains by far the worst-affected region in the world. Alongside Senegal and Uganda, there are new, hopeful signs that the epidemic can be brought under control in this region. But more resources have to become available if these kinds of successes are to be sustained and extended to other parts of the region.

Approximately 3.5 million new infections occurred in 2001, bringing to 28.5 million the total number of people living with HIV/AIDS in sub-Saharan Africa. Fewer than 30 000 people

Declaration of Commitment

By 2003 [...] have in place in all countries strategies, policies and programmes that identify and begin to address those factors that make individuals particularly vulnerable to HIV infection, including underdevelopment, economic insecurity, poverty, lack of empowerment of women, lack of education, social exclusion, illiteracy, discrimination, lack of information and/or commodities for self-protection, all types of sexual exploitation of women, girls and boys, including for commercial reasons [...] (paragraph 62).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

were estimated to have been benefiting from antiretroviral drugs at the end of 2001. The estimated number of children orphaned by AIDS living in the region is 11 million. Even if exceptionally effective prevention, treatment and care programmes take hold immediately, the scale of the crisis means that the human and socioeconomic toll will remain significant for many generations.

A long haul ahead

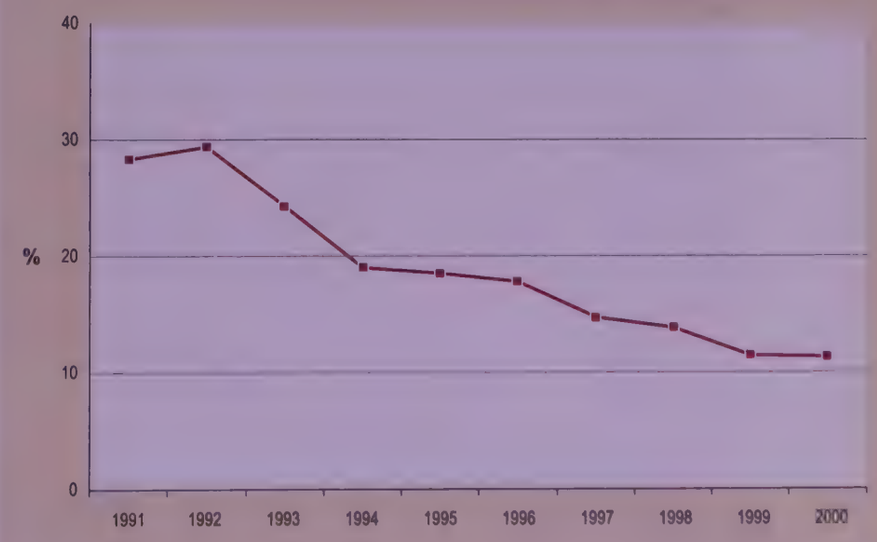
Circulating in southern Africa (where the epidemic is the most severe in the world) has been the hope that the epidemic may have reached its 'natural limit', beyond which it would not grow. Thus, it has been assumed that the very high HIV prevalence rates in some countries have reached a plateau. Unfortunately, this appears not to be the case, as yet. In Botswana, median HIV prevalence among pregnant women in urban areas already stood at 38.5% in 1997. In 2001, it had risen to 44.9%. Similar patterns are visible elsewhere. In Zimbabwe, HIV prevalence among pregnant women climbed from 29% in 1997 to 35% in 2000, while in Namibia it rose from 26% in 1998 to 29.6% in 2000, and in Swaziland from 30.3% to 32.3%, in the same period. If a natural HIV prevalence limit does exist in these countries, it is considerably higher than previously thought.

Startling as these prevalence levels are, they do not reflect the actual risk of acquiring HIV. And prevalence rates are even higher in specific age groups. In Botswana, among 25–29-year-old women attending antenatal care in urban areas, 55.6% were living with HIV/AIDS in 2001. In Swaziland, the corresponding prevalence rate in 2000 was 33.9%, and in Zimbabwe it was 40.1%.

According to the South African Ministry of Health, HIV prevalence among pregnant women attending antenatal clinics reached 24.8% in 2001, on par with the 24.5% level in 2000. About one-in-nine South Africans (or 5 million people) are living with HIV/AIDS. Yet, there are possibly heartening signs that positive trends might be increasingly taking hold among adolescents, for whom prevalence rates have dropped slightly since 1998. Large-scale information campaigns and condom distribution programmes appear to be bearing fruit. In recent surveys, approximately 55% of sexually active teenage girls reported that they always used a condom during sex. But these developments are accompanied by a troubling rise in prevalence among South Africans aged 20–34, highlighting the need for greater prevention efforts targeted at older age groups, and tailored to their realities and concerns.

Figure 1

Trends in HIV prevalence among pregnant women in Kampala, Uganda: 1991-2000



Source: STD/AIDS Control Programme, Uganda (2001) *HIV/AIDS Suveillance Report*

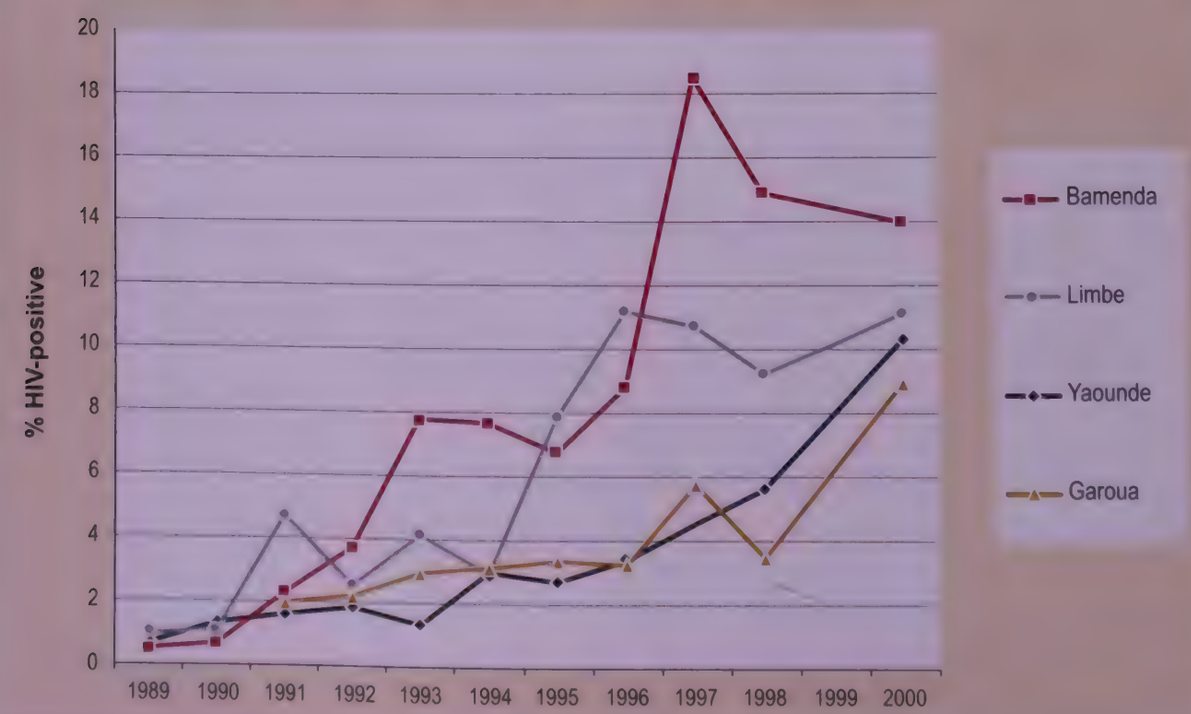
On the eastern side of the continent, the downward arc in prevalence rates continues in Uganda—the first African country to have subdued a major HIV/AIDS epidemic. By sustaining its AIDS programmes, the country has seen HIV prevalence among pregnant women in Kampala, for example, fall for eight years in a row—from a high of 29.5% in 1992 to 11.25% in 2000 (see Figure 1). But huge challenges remain. New infections continue to occur at a high rate, and countrywide prevalence among the adult population stood at 5% at the end of 2001. While efforts to expand treatment and care have increased the number of Ugandans receiving antiretroviral drugs, the vast majority of Ugandans with HIV do not share that access. And Uganda's orphan crisis will continue to strain society's resources for many decades.

No one is immune

In west and central Africa, there is evidence of recent, rapid HIV spread. Senegal appears to still be reaping the rewards of its early and concerted AIDS response while, in Mali, HIV prevalence was measured at 1.7% in a community-based survey in 2001. Although national adult HIV prevalence rates passed the 5% mark long ago in countries such as Burkina Faso, Cameroon, Côte d'Ivoire, Nigeria and Togo, the rates have stayed relatively stable over the past five-to-eight years. The danger was always that this would be mistaken for an enduring trend. Recent data from Cameroon are confirming the folly of such assumptions. HIV prevalence in Cameroon's urban areas already stood at almost 2% in 1988. Over the following eight years, urban

Figure 2

HIV prevalence rates among pregnant women attending antenatal clinics in urban sites in Cameroon: 1989-2000



Source: National AIDS Programme, Cameroon (1989-2000). Data compiled by the US Census Bureau

prevalence varied, rising as high as 4.7% in 1996. However, the 2000 round of HIV surveillance found national prevalence rates of around 11% among pregnant women (see Figure 2). That this might be the beginning of an ongoing, steep rise is indicated by the fact that the highest prevalence rates were found among young people—11.5% among 15–19-year-old pregnant women and 12.2% among those aged 20–24. Also of concern is the fact that prevalence rates were almost equally high in rural and urban areas.

These data sound a loud warning to other countries in the region, and raise strong concerns about the course of the epidemic in, for example, Nigeria, the most populous country in sub-Saharan Africa. Until recently, Nigeria's national prevalence rates remained relatively low (as was the case for neighbouring Cameroon), although growing slowly from 1.9% in 1993 to 5.8% in 2001. But some states in Nigeria are already experiencing HIV prevalence rates as high as those now found in Cameroon. Already, more than 3 million Nigerians are estimated to be living with HIV/AIDS.

What drives HIV/AIDS in Africa?

No single factor, biological or behavioural, determines the spread of HIV infection. Most HIV transmission in sub-Saharan Africa occurs through sexual intercourse, with unsafe blood transfusions and unsafe injections accounting for a small fraction. While sexual behaviour is the most important factor influencing the spread of HIV in Africa, that behaviour varies greatly across cultures, age groups, socioeconomic class, and gender. Sexual behaviour is itself influenced by a host of factors, ranging from the daily and pragmatic (such as economic and social circumstance), to the complex and abstract (such as culture). For example, higher numbers of sexual partners has consistently been found to be associated with greater likelihood of HIV infection, but the chances of individuals engaging with commercial sex workers, and thus having more partners, is clearly enhanced when large numbers of single, migrant men live together. These communities of single, male migrants (such as those in the mining communities of southern Africa, for example) have been established as a result of a complex interplay of economics and history. And this is only one example. Forced migration due to war, long-term travel along transit routes for commercial reasons, and the lack of secure livelihoods are other factors.

The interplay of multiple factors obscures causal linkages and prevents categorical conclusions. A study in four African cities (Cotonou, Kisumu, Ndola and Yaoundé) revealed that the most common behavioural and biological factors in those cities with the highest HIV prevalence were: young age at women's first sexual intercourse; young age at first marriage; age difference between spouses; the presence of HSV-2 infection and trichomoniasis (a sexually transmitted infection); and lack of male circumcision. There is substantial evidence that sexually transmitted infections enhance the risk of sexual transmission of HIV, while other analyses suggest that male circumcision may be associated with reduced risk of transmission.

Young women have consistently been found to have higher prevalence rates of HIV infection than men of the same age group. The assumption that this results from women having sex with older men suggests a possible inter-generational driver of the infection from men to women. Young women are also physiologically more susceptible to sexually transmitted infections than young men. For instance, in Kisumu, Kenya, in

1998, the prevalence of HIV infection among women aged 15–19 was 23%; among young men the same age, it was 3.5%. Sociocultural systems in many cases also limit women's control over their sexual lives.

In addition, a large share of sub-Saharan Africa's population is young and, therefore, more likely to be sexually active. This helps explain the higher incidence of HIV and other sexually transmitted infections.

Where these facilitating factors are absent, HIV infection can remain 'hidden' for many years. In the presence of social, socioeconomic and biological factors that facilitate spread, however, the epidemic may grow at a rapid rate. While the complex interplay of factors makes it difficult to estimate the likely growth of the epidemic, evidence from the past decade shows that HIV can spread rapidly and widely from very low general seroprevalence levels. All countries with risk factors must employ the range of policies and programmes available (detailed throughout this report) so as to avoid a high-prevalence epidemic.

The right responses can bring success

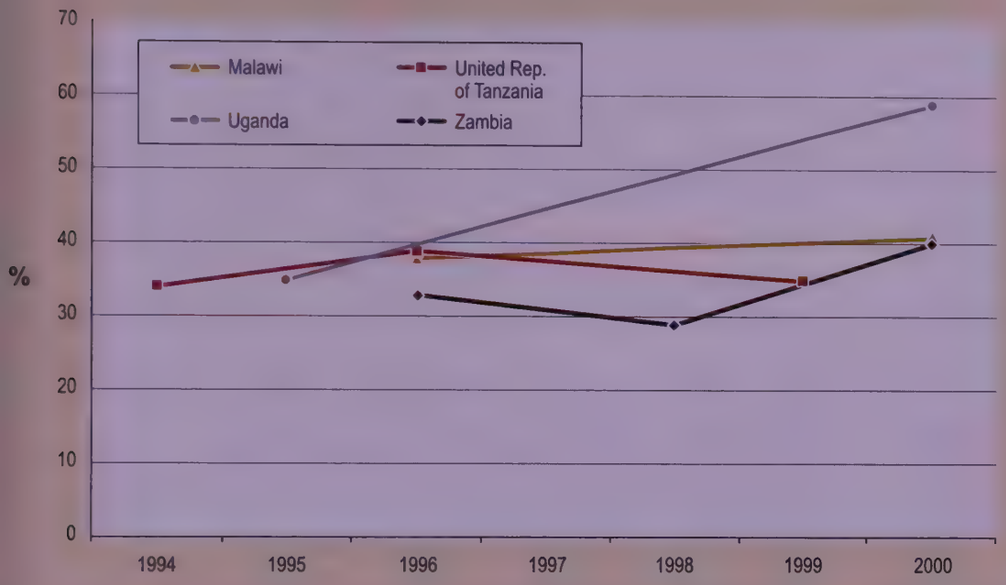
None the less, Uganda underscores the fact that a rampant HIV/AIDS epidemic can be brought under control. There is growing evidence that prevention efforts are bearing fruit, including in some of the most heavily affected countries of sub-Saharan Africa. However, much of the progress is still occurring in localized settings.

One new study in Zambia shows urban men and women reporting less sexual activity, fewer multiple partners and more consistent use of condoms. This is in line with recently published findings that HIV prevalence declined significantly among 15–29-year-old urban women (down to 24.1% in 1999 from 28.3% in 1996), as well as among rural women aged 15–24 (down from 16.1% to 12.2% in the same period). Although those rates are still unacceptably high, this drop has prompted the hope that, were Zambia to continue building its response, it could become the second African country (after Uganda) to reverse an epidemic of crisis proportions. However, many hurdles still separate the country from such a milestone. Condom use among rural men remains very low (reported as 15% in 2001 compared to 68% for urban men when they last had sex with a casual or paid partner). Stricken with a large debt burden, a poorly performing economy and massive socioeconomic challenges, Zambia is no different from many other sub-Saharan African countries in that its domestic financial resources are not equal to the task at hand. None the less, massive mobilization and awareness campaigns by community- and faith-based organizations have resulted in behavioural change leading to a reduction in new infections. Decentralized home-based care programmes have also resulted in better care and treatment of people living with AIDS.

From the other end of the continent comes further evidence that prevention works. A new review of efforts mounted among female sex workers attending a clinic in Abidjan, Côte d'Ivoire, shows that prevalence of HIV infection among the women fell from 89% to 32% in 1991–1998. Partly explaining this positive development is the fact that the 20% share of sex workers who, in 1992, said they had

Figure 3

Condom use among men with non-regular partners in selected sub-Saharan African countries: 1994-2000



Sources: Macro International (1994-2000) Demographic and Health Surveys; Measure Evaluation

used condoms in their most recent working day, swelled to 78% in 1998. Sustained prevention efforts, built around local initiatives, have been central to this shift.

New concerns in conflict zones

A troubling rise in HIV prevalence has been detected in Angola. Although the country's civil war has hindered data collection, a significant increase in prevalence has been documented among pregnant women attending antenatal clinics in the capital, Luanda. In 2001, 8.6% of the women were HIV-positive, up from 1.2% in 1995. Given that the capital serves as a refuge for tens of thousands of people displaced by the war, this upward trend is a serious concern. (In Huila and Benguela Provinces, by contrast, the corresponding figures were 4.4% and 2.6% respectively). There is cause to fear a similar trend in the Great Lakes region. While war and other hindrances make accurate surveillance data collection there difficult, the massive displacement of people, and disruption of social and governance systems are worsening the vulnerability of huge numbers of people. An upward trend such as that now evident in parts of Angola cannot be ruled out in, for example, Burundi, the Democratic Republic of Congo and Rwanda. Elsewhere, initiatives such as the Mano River Union (which involves Côte d'Ivoire, Guinea, Liberia and Sierra Leone) have been introduced to help deal with the movement of refugees in conflict zones, by trying to foster economic development while strengthening peace efforts.

Despite the stacked odds

In many parts of sub-Saharan Africa, as elsewhere in the world, gender inequality and economic deprivation help drive the epidemic. At the same time, efforts to reverse the epidemic are undermined by resource shortages, weakened terms of trade and low rates of economic growth, despite economies having been restructured over the past two decades.

Nevertheless, there are heartening signs that a growing number of governments are not allowing these handicaps to hold up their responses. Steady but slow progress is being made on the treatment-and-care front. In the southern African region, relatively prosperous Botswana has become the first country to adopt a policy that aims to ultimately make

antiretrovirals available to all citizens who need them, through its public health system.

The political commitment to turn the tide of AIDS appears stronger than ever. Gatherings, such as the 2000 African Development Forum meeting and the Organization of African Unity Summit on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases in April 2001, appear to be cementing that resolve. At the latter meeting, Heads of State agreed to devote at least 15% of their countries' annual budgets to improving their health sectors (see 'Meeting the need' chapter). Several regional initiatives to roll back the epidemic are under way. Some, such as those grouping countries in the Great Lakes region, the Lake Chad Basin, and West Africa, are concentrating their efforts on reducing the vulnerability of refugees and other mobile populations.

Other initiatives are continent-wide, such as the International Partnership against AIDS in Africa. Harnessing the strengths of its members (governments, the United Nations, donors, and the private and community sectors) the Partnership in its first two years of existence has helped galvanize national HIV/AIDS responses. Nineteen countries have set up national HIV/AIDS councils or commissions at senior levels of government, and local responses are growing in number and vigour. Thirty-four countries across the region have completed national strategic AIDS plans, and another seven plans were near completion in March 2002. These plans serve as the basis for the more detailed strategies of various ministries, provinces, districts, civil society and the business sector.

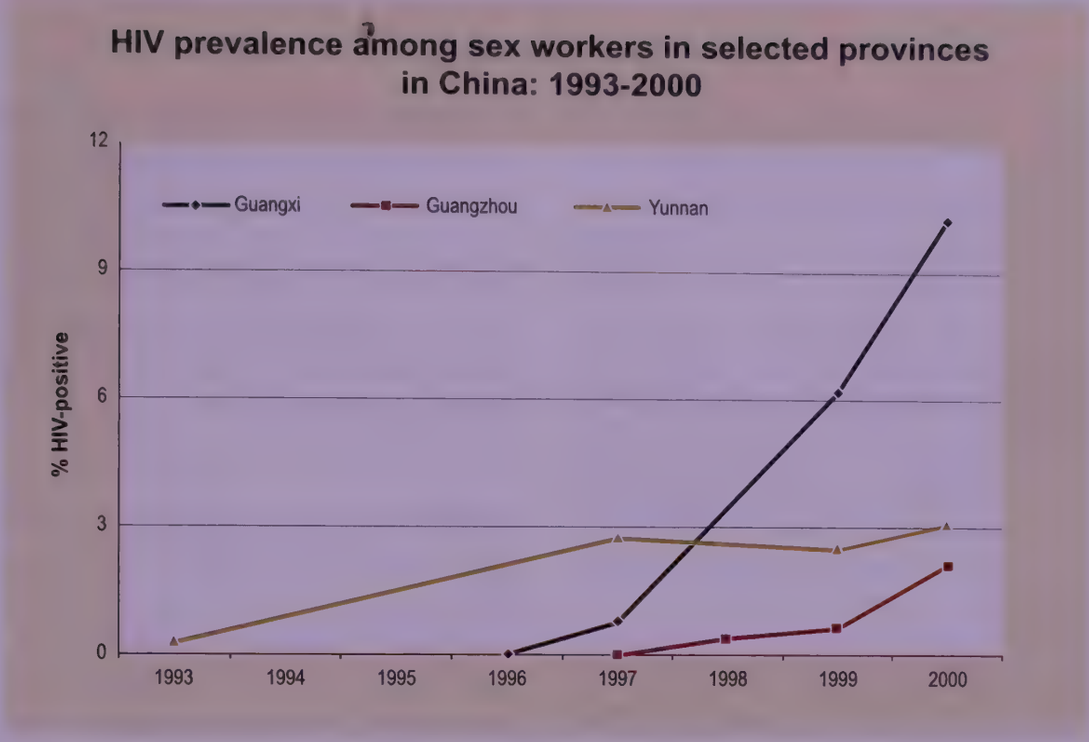
Notwithstanding the progress, too many countries still reflect the fact that the longer effective action is delayed, the harder it is to change the course of the epidemic. Underlined is the need for long-term planning to slow the epidemic and reduce its impact. Equally important are stepped-up efforts to protect the millions of seronegative people (especially the young) from infection. That means enabling the more-than-90% of Africans who are not HIV-positive to protect themselves against infection. The other massive challenge is that of ensuring that the estimated 9% of African adults (aged 15–49) who are HIV-positive get the treatment and care they need.

Asia and the Pacific

Despite well-documented and successful HIV-prevention programmes in a few countries, the HIV/AIDS epidemic continues to spread in Asia and the Pacific. In the past two years, the situation has changed rapidly in several parts of the region.

This region serves as a reminder that no country is immune to a serious HIV epidemic. Low national prevalence rates conceal serious, localized epidemics in several areas, including China and India, where large numbers of people are infected and affected—proof that national HIV prevalence figures do not tell the full story of the epidemic. In fact, the region as a whole is home to more people living with HIV/AIDS than any other besides sub-Saharan Africa—an estimated 6.6 million people at the end of 2001, including the 1 million adults and children who were newly infected with HIV in that year. Less than

Figure 4



Source: National AIDS Programme, China (1993-2000). Data compiled by the US Census Bureau

30 000 people are on antiretroviral treatment in this region.

Appearances can deceive

In China, home to a fifth of the world's people, HIV is moving into new groups of the population and raising the spectre of a much more widespread epidemic. Surveillance data on China's huge population are sketchy, but it is estimated that around 850 000 Chinese were living with HIV/AIDS in 2001, with reported HIV infections having risen more than 67% in the first six months of 2001.

Several HIV epidemics are being observed among certain population groups in different parts of this vast country. Serious localized HIV epidemics are occurring among injecting drug users in at least seven provinces, with prevalence rates higher than 70% among injecting drug users in areas such as Yili Prefecture in Xinjiang and Ruili County in Yunnan. Another nine provinces are possibly on the brink of similar HIV epidemics because of very high rates of needle-sharing. There are also signs of heterosexually transmitted HIV epidemics in at least three provinces (see Figure 4).

Widespread attention has been devoted to the serious epidemics in Henan Province in central China, where many tens of thousands (and possibly more) of rural villagers have become infected since the early 1990s by selling their blood to collecting centres that did not follow basic blood-donation safety procedures. There are concerns that similar tragedies might have unfolded in other provinces, including Anhui and Shanxi. Overall, it has been estimated that 150 000 (and possibly many more) people may have been infected through these practices.

Several other factors highlight the need for swift action if a much more serious epidemic is to be prevented. Reported sexually transmitted infections increased significantly from 430 000 cases in 1997 to 860 000 cases in 2000. This suggests that unprotected sex with non-monogamous partners is on the rise in China. In addition, massive population mobil-

ity (an estimated 100 million Chinese are temporarily or permanently away from their registered addresses), and increasing socio-economic disparities add to the likelihood of wider HIV spread.

By expanding prevention and care efforts across the entire nation, China can avert millions of HIV infections and save millions of lives in the coming decade. The five-year AIDS action plan promulgated in mid-2001 has signalled a strong commitment to take up the challenge.

India, too, is experiencing serious, localized epidemics. At the end of 2001, India's national adult HIV prevalence rate was under 1%, yet this meant that an estimated 3.97 million Indians were living with HIV/AIDS—more than in any other country besides South Africa. The epidemic is spreading among the general population and beyond groups with high-risk behaviour. Indeed, median HIV prevalence among women attending antenatal clinics was higher than 2% in Andhra Pradesh and exceeded 1% in four other states (Karnataka, Maharashtra, Manipur and Tamil Nadu). India's epidemic is also strikingly diverse, both among and within states.

In the shadows

The factors facilitating the rapid spread of HIV/AIDS epidemics are present throughout the region. This is reflected in the fact that many countries are experiencing high HIV infection rates among some population groups—mainly injecting drug users, sex workers and men who have sex with men. In Ho Chi Minh City in Viet Nam, for example, the percentage of sex workers with HIV has risen sharply since 1998, reaching more than 20% by 2000. Across the region, injecting drug use offers the epidemic huge scope for growth. Upwards of 50% of injecting drug users already have acquired the virus in Myanmar, Nepal, Thailand and Manipur in India. Recent surveys show very high rates of needle-sharing among users in other countries, including Bangladesh and Viet Nam. It is vital that more effective HIV-prevention programmes among injecting drug users be introduced.

Male-to-male sex occurs in all countries of the region and features significantly in the epidemic, despite much official denial. Countries that have measured HIV prevalence among men who have sex with men have found it to be high—14% in Cambodia in 2000, for example, roughly the same level among Thai male sex workers, and up to 10% in several states in Malaysia (see 'Prevention' chapter).

Indonesia, the world's fourth-most populous country, shows just how suddenly a HIV/AIDS epidemic can emerge. After more than a decade of negligible HIV prevalence rates, the country is now seeing infection rates increase rapidly among injecting drug users and sex workers, in some places, along with an exponential rise in infection among blood donors (an indication of HIV spread in the population at large). Although injecting drug use is a relatively recent phenomenon in this country, HIV prevalence measured in one drug treatment centre in the capital, Jakarta, rose from 15.4% in 2000 to over 40% by mid-2001. The situation in Indonesia underlines the fact that, where risky behaviour exists, the epidemic may eventually spread, even if it takes some years for that spread to become apparent.

Among the Pacific Island countries and territories, Papua New Guinea has reported the highest HIV infection rates. Although prevalence

of HIV is still low in the wider population, recent studies in the capital, Port Moresby, have found high HIV prevalence levels among female sex workers (17%) and people attending sexually transmitted infection clinics (7% in 1999). Given the very low levels of condom use, and very high rates of sexually transmitted infections, the country could see HIV spreading beyond these groups.

The Philippines, meanwhile, has taken strong action against HIV/AIDS. To date, this has helped keep HIV prevalence low, but there are risks that an epidemic could grow, especially if efforts are not quickly expanded. High rates of other sexually transmitted infections among Filipino sex workers, their clients and men who have sex with men indicate low levels of condom use. Fewer than half of sex workers in the Philippines report using condoms with every client.

The effort pays off

Thailand and Cambodia have shown that the 'natural' course of the epidemic can be changed. Early, large-scale prevention programmes, which include efforts directed at both those with higher-risk behaviour and the broader population, can keep infection rates lower in specific groups and reduce the risk of extensive HIV spread in the wider population.

In the past two years, Cambodia has demonstrated that consistent political commitment at all levels can bring the epidemic under control. HIV prevalence among pregnant women in major urban areas declined from 3.2% in 1996 to 2.7% at the end of 2000, thanks to a multifaceted response that includes a 100%-condom-use programme, and steps to counter stigma and reduce people's vulner-

Working against the clock

HIV infection levels in Bangladesh are still low, even among population groups that are at high risk of infection. But the risk factors are so widespread that, once the virus is introduced, it will probably spread very rapidly. Only 0.2% of brothel-based sex workers in central Bangladesh, for example, said they used condoms consistently during paid sex, while condom use is also very low among men who have sex with men. Fully 93% of men who sell sex to other men in central Bangladesh said they seldom or never used condoms; among men buying sex, 95% gave the same answer. Meanwhile, needle-sharing is a common practice among injecting drug users, with a 2001 survey showing that over 60% of users in northern Bangladesh and 93% in central Bangladesh shared equipment.

Alert to these dangers, Bangladesh has mounted an early response that is driven by strong commitment. The country's President is the Chief Patron of the National Programme on AIDS and STI, and a special ministerial committee is helping coordinate AIDS work inside the government. Nongovernmental organizations are running innovative projects with groups of people at highest risk, including migrant workers and young people. A countrywide network of such organizations working on AIDS participates in the country's National AIDS Committee and takes part in policy formulation. And, as one of the largest providers of United Nations peacekeeping forces, Bangladesh has also developed a successful programme to prevent HIV infection among its peacekeeping personnel.

ability. In 2001, the country took another step forward by enacting a new and inclusive national AIDS strategic plan based on analysis undertaken by the Cambodian authorities. HIV/AIDS has now been mainstreamed into the strategic plans of several ministries, including the Ministry of National Defence. This allows Cambodia to expand successful projects nationally, and to tackle outstanding issues such as blood safety, which remains a major concern.

Thailand, though, is also a reminder that success can be relative. Its well-funded, politically-supported and comprehensive prevention programmes have saved millions of lives, reducing the number of new HIV infections from 143 000 in 1991 to 29 000 in 2001. None the less, one-in-100 Thais in this country of 63.6 million people are infected with HIV, and AIDS has become the leading cause of death. There is concern that, unless prevention efforts are adapted to changes in the epidemic, it could break out of its current pattern and spread further. At particular risk are the spouses of sex workers' clients, young people, injecting drug users, men who have sex with men, and mobile populations.

Eastern Europe and Central Asia

HIV/AIDS is spreading rapidly through countries of this region, which continues to experience the fastest-growing epidemic in the world. In 2001, there were an estimated 250 000 new infections, bringing to 1 million the number of people living with HIV/AIDS. Less than 1000 people are estimated to be receiving antiretroviral treatment.

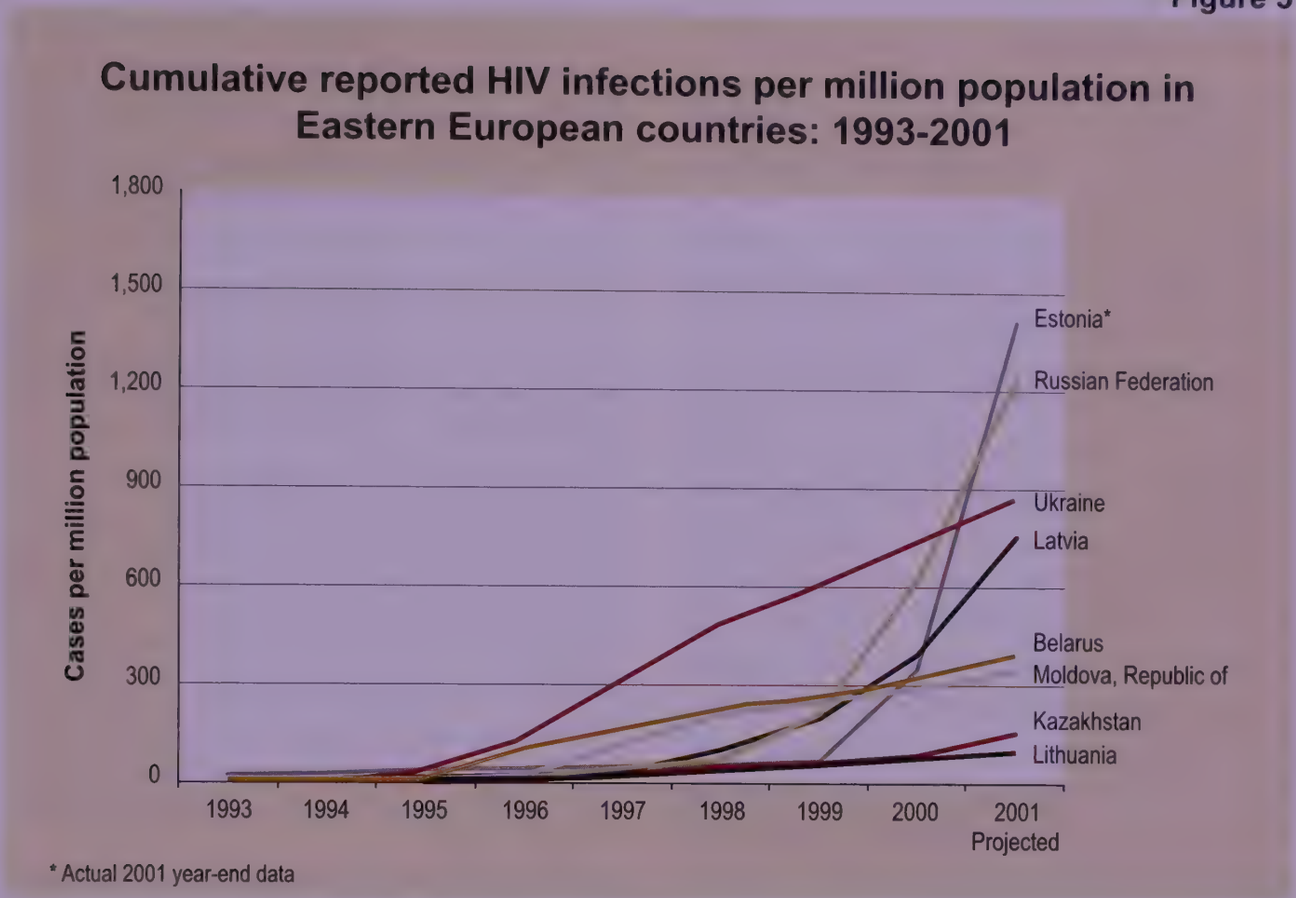
The Russian Federation remains at the forefront of the epidemic in this region, but many others countries are now experiencing rapidly emerging epidemics, as shown in Figure 5. Except for isolated epidemics in the early 1990s (related to injecting drug use in Poland, and to nosocomial infections among thousands of children in Romania), no country of the region was reporting many HIV infections in 1994. This began to change with the first widespread outbreak of HIV in Ukraine and Belarus in 1995. The epidemic then started to take off in other countries of the region—Moldova in 1996 and the Russian Federation in 1998, followed by Latvia and then Kazakhstan.

In the Russian Federation, the startling increase in HIV infections of recent years is continuing, with new reported diagnoses almost doubling annually since 1998.

Almost 83 000 new HIV-positive diagnoses were reported in 2001, raising the total number of HIV infections reported since the epidemic began to more than 173 000 in 2001—up from the 10 993 reported at the end of 1998. The estimated number of people now living with HIV/AIDS in the Russian Federation is thought to be around four times higher than these reported figures.

Reported HIV incidence is rising sharply in other countries, too. In Estonia, reported infections have soared from 12 in 1999 to 1474 in 2001. The same pattern appears in Latvia, where new reported infections rose from 25 in 1997 to 807 in 2001. The epidemic is growing in Kazakhstan, where 1175 HIV infections were reported in 2001. Swift spread of HIV is now also evident in Azerbaijan, Georgia, Kyrgyzstan, Tajikistan and Uzbekistan.

Figure 5



Source: National AIDS Programmes (2001) *HIV/AIDS surveillance in Europe. Mid-year report.* Data compiled by the European Centre for the Epidemiological Monitoring of AIDS

Ukraine, with an estimated adult HIV prevalence rate of 1%, remains the most affected country in the region and, indeed, in all of Europe. An estimated 250 000 people were living with HIV in this country of nearly 50 million. While three-quarters of cumulative HIV infections in Ukraine are related to injecting drug use, the proportion of sexually transmitted HIV infections is increasing. Although their absolute numbers remain small, more people (mostly women) appear to be contracting HIV through sexual transmission and more pregnant women are testing positive for HIV, suggesting a shift of the epidemic into the wider population.

In the psychological and socioeconomic aftermath of the recent conflicts in the Balkans, young people have become more vulnerable to HIV. Currently, there is little evidence that the HIV/AIDS epidemic has become well established there, but limited surveillance data means that the actual levels or trends in the epidemic are not clear. A recent, extensive rapid assessment study by WHO and UNICEF found high levels of drug injection in some places, along with frequent sharing of injecting equipment. Among men who have sex with men, and sex workers, reported condom use is low. The study also found strong overlap between these groups at higher risk. For example, in Serbia, 20% of sex workers and 18% of men who have sex with men were found to inject drugs.

Fertile settings

Several factors are creating a fertile setting for the epidemic. The opening of borders has drawn several countries in the region into the globalized circuits of drug trafficking. Mass unemployment and economic insecurity beset much of the region. The rigid social control of the past has eroded, and new common norms and values are yet to become firmly grounded. Public health and other services are steadily deteriorating in some countries. Unprecedented numbers of young people do not complete their secondary schooling. Belarus, Bulgaria, Latvia, Lithuania, the Republic of Moldova, Romania, the Russian Federation and Ukraine all experienced setbacks in the human development index over the past two decades. (The index measures countries' average achievements in life expectancy, educational attainment and real gross domestic product per capita.)

In the Commonwealth of Independent States, the vast majority of reported HIV infections are among young people—chiefly among those who inject drugs. It is estimated that up to 1% of the population of those countries is injecting drugs, placing these people and their sexual partners at high risk of infection. Sentinel surveillance in St Petersburg in 2000, for example, revealed an increase in HIV prevalence from 12% to 19.3% among injecting drug users in one year. In the Belarus city of Svetlogorsk, sentinel surveillance found an astounding 62% HIV prevalence rate among injecting drug users in 2000.

There is evidence that young people in several countries are becoming sexually active at an earlier age and that premarital sex is increasing. A steady rise in premarital sex is being observed among Romanian adolescent girls (aged 15–19), for example. The percentage of reported premarital sexual relations in 1993 (9%) had more than doubled to 22% in 1999, while a 2000 report in Ukraine found that about 51% of women aged 15–24 had had a premarital sexual relationship.

In some Central Asian republics, as of 2001, awareness of HIV/AIDS was still dismal among vulnerable groups, such as adolescent (15–19-year-old) girls—a mere 10% of whom in Tajikistan had ever heard of HIV/AIDS. In 2001, in Azerbaijan and Uzbekistan, fewer than 60% were aware of the disease. The proportion of young girls harbouring at least one major misconception about HIV/AIDS ranged from 94% to 98% in those countries. In Ukraine, which has the highest HIV prevalence rate in Europe, only 9% of adolescent girls were aware of HIV prevention methods.

Although improving in some countries, levels of condom use remain low. In the 2000 Ukraine report referred to earlier, only 28% of the young women had used a condom when they first had sex. Meanwhile, very high rates of sexually transmitted infections continue to be found in Eastern Europe and Central Asia, compounding the odds of HIV being transmitted through unprotected sex. In 2000, the number of newly reported cases of syphilis in the Russian Federation stood at 157 per 100 000 persons, compared to 4.2 per 100 000 persons in 1987. Similar general trends are visible in the other countries of the Commonwealth of Independent States, in the Baltic States and in Romania.

HIV risk is also high among men who have sex with men, among whom multiple partners and unprotected sex are widespread. While laws penalizing homosexual activities with imprisonment have been struck off the stat-

ute books in most countries of the former Soviet Union, this group remains highly stigmatized socially. Recently, gay groups have started HIV prevention activities for men who have sex with men in Belarus, Ukraine and several Central Asian republics. Overall, though, coverage remains minimal.

Some cause for optimism

Central Europe offers cause for moderate optimism. By mounting a strong national response, the Polish Government has successfully curtailed the epidemic among injecting drug users and prevented it from gaining a foothold in the wider population. Prevalence remains low in countries such as the Czech Republic, Hungary and Slovenia, where well-designed national HIV/AIDS programmes are in operation.

There are other signs of growing political commitment in the region. Members of the Commonwealth of Independent States were the first to organize a regional follow-up to the 2001 United Nations General Assembly Special Session on HIV/AIDS, and recently endorsed a regional Programme of Work on HIV/AIDS. In countries such as Bulgaria, Romania, the Russian Federation and Ukraine, the budgets of national AIDS programmes have increased considerably. Stronger partnerships are also being forged between governments, the private sector and nongovernmental organizations, with Ukraine setting a strong example on this front.

Despite the economic hardships and public spending cuts that are weakening many countries' health systems and general infrastructure, the capacity of the region remains generally good. This is particularly true for human resources. People are generally well educated, and the illiteracy rate remains low. Many countries have managed to adopt best practices, and considerable efforts are being made in training and capacity-building in prevention and care. For many, too, national strategic plans on HIV/AIDS, which identify young people and vulnerable groups as priorities, have been developed. More than 150 HIV/AIDS prevention projects among injecting drug users now operate across the region, along with projects focusing on other vulnerable populations such as prison inmates, sex workers and men who have sex with men.

Building on these achievements, the current challenge is to expand coverage, develop and implement more comprehensive approaches to reduce vulnerability among young people, and create better access to care for those who are becoming ill.

Latin America and the Caribbean

The epidemic in Latin America and the Caribbean is well established and is in danger of spreading both more quickly and more widely in the absence of effective responses. An estimated 1.9 million adults and children are living with HIV—a figure that includes the estimated 200 000 people who acquired the virus in 2001. Some 1.5 million people are living with HIV/AIDS in Latin America and 420 000 in the Caribbean. At the end of 2001, an estimated 170 000 people living with HIV/AIDS were receiving antiretroviral treatment.

Twelve countries in this region (including the Dominican Republic and Haiti, several Central American countries, such as Belize and Honduras, and Guyana and Suriname) have an estimated HIV prevalence of 1% or more among pregnant women. In these areas, the epidemic is firmly rooted in the wider population and is driven mainly by heterosexual intercourse.

In several of the countries forming the Caribbean Basin, adult HIV prevalence rates are surpassed only by the rates experienced in sub-Saharan Africa, making this the second-most affected region in the world. HIV/AIDS is now a leading cause of death in some of these countries. Worst affected are Haiti (with a national adult HIV prevalence of over 6%) and the Bahamas (where prevalence is close to 4%). Surveillance data released in 2000 indicate a relatively stable HIV prevalence rate of around 2% among the adult population of the Dominican Republic, after the increases seen in the 1990s.

Figure 6

HIV prevalence among pregnant women in Santo Domingo, the Dominican Republic: 1991-2000

Source: National AIDS Programme, the Dominican Republic, 1991-2000

Driving factors

Among the factors helping drive the spread of HIV is the combination of unequal socio-economic development and high population mobility, as Central America shows. There, the epidemic is worsening and is concentrated chiefly among socially marginalized populations. Population mobility (spurred by high rates of unemployment and poverty) is emerging as a significant factor in the epidemic's growth, with new research highlighting the need for interventions at border crossings and transit stations to help protect migrant and sex workers against possible infection. Central America's geographic position also makes it an important transit zone for people moving between the rest of the region and North American countries. Protecting vulnerable populations on the move, including adolescent girls and young women, is now the focus of a regional initiative.

In Mexico, adult HIV prevalence in the wider population is still well under 1%, but much higher prevalence rates are being detected among specific population groups in some parts of the country—up to 6% among injecting drug users and 15% among men who have sex with men. There, as in some South American and Caribbean countries, the epidemic has been spreading mainly through these modes of transmission. There is significant overlap between these two groups, especially in Brazil and the southern cone countries, where injecting drug use is a growing social phenomenon.

Encouraging progress

In Brazil, where prevention programmes among injecting drug users feature strongly in the country's response, a substantial decline in HIV prevalence among injecting drug users has been observed in several large metropolitan areas. In addition, a national survey has shown condom use among injecting drug users rising (from 42% in 1999 to 65% in 2000)—a sign that sustained education and prevention efforts are bearing fruit. In 2001, Argentina authorized its Ministry of Health to introduce a national policy on harm minimization, and is also collaborating with Chile, Paraguay and Uruguay to set up similar schemes for injecting drugs users.

Countries' commitment to stem the epidemic and limit its impact is perhaps most evident in the efforts to distribute antiretroviral drugs to HIV/AIDS patients. As detailed in the 'Treatment, care and support' chapter, this region has made significant advances in access to treatment and care. By reducing HIV/AIDS-related morbidity, Brazil's treatment-and-care programme is estimated to have avoided 234 000 hospitalizations in 1996–2000.

Strengthened political resolve is apparent in several regional initiatives. Launched in February 2001, the Pan-Caribbean Partnership against HIV/AIDS, for instance, links the resources of governments and the international community with those of civil society to boost national and regional responses. It is being coordinated by the Caribbean Community Secretariat (CARICOM). National AIDS programmes have also joined a collaborative scheme to share technical assistance throughout Latin America and the Caribbean. Known as the Horizontal Technical Cooperation Group, it brings together more than 20 countries of the region. And, on the basis of the Nassau Declaration issued in July 2001, as follow-up to the UN General Assembly Special Session on HIV/AIDS, Caribbean Heads of Government are also devising ways to support each other's national HIV/AIDS programmes and jointly negotiate affordable prices for antiretroviral drugs.

The Middle East and North Africa

In the countries of the Middle East and North Africa, the visible trend is also towards increasing HIV infection rates, though still at very low levels in most countries. Existing surveillance systems in many countries of the region have been strengthened, and it is currently estimated that 80 000 people acquired the virus in 2001, bringing to 500 000 the number of people living with HIV/AIDS.

Despite the comparatively late arrival of the epidemic in this region, significant increases in HIV infections are occurring in several places, particularly among some population groups. While there is recognition of the need for more effective, sustained and far-reaching prevention efforts in the region, existing capacities are still limited, and the HIV/AIDS response is still concentrated in the health sector only. Yet, only a very small number of people living with HIV/AIDS (less than 2000) benefit from antiretroviral therapy.

Unfortunately, factors driving the epidemic in most countries in the region are still too seldom analysed systematically. As a result, HIV/AIDS responses rarely rest on a clear understanding of infection patterns or the behaviour and needs of particular high-risk groups. Based on current knowledge, however, it appears that sexual intercourse remains the dominant route of transmission, although significant outbreaks of HIV infection are occurring among injecting drug users. Moreover, conditions that favour more rapid and extensive HIV spread (such as high levels of population mobility, socioeconomic disparities and complex emergencies) exist in several countries in this region.

Already, Djibouti and the Sudan have large, widespread epidemics that are driven by combinations of socioeconomic disparities, large-scale population mobility and political instability, and other countries may also be moving towards a more generalized spread.

A surveillance study in Algeria has detected HIV prevalence rates of 1% among pregnant women in the south of the country. These findings raise concern that, amid the social disruption caused by civil strife, a generalized HIV epidemic could emerge rapidly. Strong political commitment to avert such an outcome was evident in 2001, with several ministries now actively taking up the AIDS challenge.

In neighbouring Morocco, national HIV prevalence was well below 1% in 2001. However, the National AIDS Control Programme noted in 2001 the relatively high prevalence of other sexually transmitted infections–an indication that risky behaviour (such as having multiple sexual partners, and buying and selling sex) might be more widespread than commonly thought.

Dangerous new highs

Except for the Sudan and the Republic of Yemen, all countries in the region have reported HIV transmission through injecting drug use. Unless addressed promptly through harm minimization and other prevention approaches, the epidemic among injecting drug users could grow dramatically and spread into the wider population.

Outbreaks of HIV are occurring elsewhere in North Africa, including in the Libyan Arab Jamahiriya, where all but a fraction of the 570 new HIV infections reported in 2000 were among injecting drug users. Among prisoners in the Islamic Republic of Iran, rates of HIV infection rose from 1.37% in 1999 to 2.28% in 2000. By 2001, 10 Iranian prisons had reported HIV infection among injecting drug users. HIV prevalence among imprisoned drug injectors was 12% in 2001, with one site reporting prevalence as high as 63%. These figures might reflect the fact that injecting drug users are more likely to be arrested and imprisoned, but they almost certainly also indicate that some transmission of HIV is occurring behind prison walls.

There are also signs that the double disease burden of HIV and tuberculosis is growing in some countries. Rates of HIV infection among tuberculosis patients are rising and, by mid-2001, stood at 8% in the Sudan, 4.8% in Oman and 4.2% in the Islamic Republic of Iran.

At the same time, the political will to mount a more potent response to the epidemic is visible in several countries, some of which are introducing innovative approaches. Examples include the mobilization of nongovernmental organizations around prevention programmes

in Lebanon, and harm-minimization work among injecting drug users in the Islamic Republic of Iran. A potential breakthrough in the response occurred in late 2001, when UNAIDS and National AIDS Programme managers from across the region met and, for the first time at regional level, agreed to focus on fresh efforts to protect young people, mobile populations, displaced persons and drug users against the epidemic.

High-income countries

HIV/AIDS continues to threaten high-income countries, where approximately 75 000 people became infected with HIV in 2001. A total of 1.5 million people are now living with the virus in these countries, where two pronounced changes have become apparent in recent years. About 500 000 people are receiving antiretrovirals.

Higher rates of sexually transmitted infections are signalling a rise in unsafe sex and highlighting the need for renewed prevention efforts, especially among young people. In addition, heterosexual transmission of HIV now accounts for a bigger share of new infections, with young, disadvantaged people appearing to be at particular risk. The prospect of larger HIV/AIDS epidemics cannot be ruled out if widespread public complacency is not addressed, and if inappropriate or stalled prevention efforts are not adapted to reflect changes in the epidemic.

The HIV epidemic in Western Europe is the result of a multitude of epidemics that differ in terms of their timing, their scale and the populations they affect. In Spain, a significant share of HIV infections (24%) is occurring via heterosexual transmission. But injecting drug use is the main mode of transmission. Reported HIV prevalence among injecting drug users in 2000 was 20–30% nationwide (although two studies have shown decreasing trends, from 44% in 1996 to 36% in 1999), while, in France, prevalence rates ranged between 10% and 23%. Portugal, meanwhile, faces a serious epidemic among injecting drug users. Of the 3680 new HIV infections reported there in 2000, more than half were caused by injecting drug use and just under a third occurred via heterosexual intercourse. At 37.3 per 100 000 persons, Portugal's rate of reported new infections is the highest among all reporting countries in Western Europe.

An increasing proportion of new HIV diagnoses are among those who have been infected heterosexually. In the United Kingdom, for example, nearly half of the 3400 new HIV infections diagnosed there in 2000 (an increase over previous years) resulted from heterosexual sex, compared to 21% of new infections a decade earlier. There, as in several other European countries, a large share of these HIV infections appears to have been acquired in countries where there is a generalized epidemic. An increase in unsafe sex in the United Kingdom may also be playing a role in the rise in HIV prevalence, as there has been an increase in reported cases of gonorrhoea among both heterosexual and homosexual males.

There is evidence that HIV is moving into poorer and more deprived communities in some high-income countries, with women

at particular risk of infection. Young adults belonging to ethnic minorities (including men who have sex with men) in the United States of America are considerably more likely to be infected than before. African-Americans, for instance, make up only 13% of the population of the United States, but accounted for an estimated 54% of new HIV infections in 2000. One six-city survey in the United States of America found that HIV prevalence levels reached 30% among 23–29-year-old African-American men who had sex with men. Some 70% of new infections occur among men, and the main mode of transmission remains that of sex between males. But young disadvantaged women (especially African-American and Hispanic women) are increasingly vulnerable to infection. About 82% of the women estimated to have become HIV-positive in 2000 were African-American and Hispanic. Overall, almost one-third of new HIV-positive diagnoses were among women in 2000. In this latter group, an overlap of injecting drug use and heterosexual intercourse appears to be driving the epidemic. Indeed, injecting drug use has become a more prominent route of HIV infection, with an estimated 30% of new reported AIDS cases related to this mode of transmission. In Canada, too, women now account for 24% of new HIV infections, compared to 8.5% in 1995.

There are signs that the sexual behaviour of young people in Japan could be changing significantly and putting this group at greater risk of HIV infection. Higher rates of *Chlamydia* among females and gonorrhoea among males, as well as a doubling of the number of induced abortions among teenage women in the past five years, indicate increased rates of unprotected sexual intercourse. Sex between men remains an important transmission route in

Figure 7

Sources: (Vancouver) Hogg RS et al. (2001) *AIDS*. (Madrid) Del Romero J et al. (2001) *AIDS*. (San Francisco) Katz MH et al. (2002) *Am. J. of Public Health*

several countries, while recently becoming a more prominent mode of HIV transmission in others, such as Japan. There, the number of HIV infections detected in men who have sex with men has risen sharply in recent years. Male-male sex now accounts for more than twice as many HIV infections in men as heterosexual sex; two years ago, the number of new infections reported in both groups was roughly equal.

In Australia, Canada, the United States of America and countries of Western Europe, an apparent increase in unsafe sex is triggering higher rates of sexually transmitted infections and, in some cases, higher HIV incidence among men who have sex with men. The rise in new HIV infections among men who have sex with men is striking, as Figure 7 shows. Rising incidence of other sexually transmitted infections among men who have sex with men (in Amsterdam, Sydney, London and southern California, for instance) confirms that more widespread risk-taking is eclipsing the safer-sex ethic promoted so effectively for much of the 1980s and 1990s. A syphilis outbreak in Los Angeles among men who have sex with men, reported in 2001, confirmed warnings that safe sex was on the decline in that city. In a 2000 French study, 38% of surveyed HIV-positive men who have sex with men said they had recently practised unsafe sex, compared to 26% in 1997.

The reasons for this are debatable. Part of the explanation could lie in the perceived life-saving effects of antiretroviral therapy, introduced in high-income countries in 1996. Deaths attributed to HIV in the United States of America, for instance, fell by a remarkable 42% in 1996–97. Since then, the decline has levelled off, with an estimated 15 000 people dying of AIDS in 2001. On the other hand, surveys show that only a minority of gay men who report increased risk-taking associate their actions with less concern about becoming infected, or optimism about HIV/AIDS treatment.

A link between treatment availability and unsafe sex?

A debate has emerged over the possibility that the wide availability of highly active antiretroviral therapy (HAART) in high-income countries might be encouraging unsafe sex, by causing some people to view HIV infection as a less devastating prospect. However, no studies have found a causal relationship between this so-called 'treatment optimism' and unprotected sex. One review in 2001 found that, in a range of surveys done since 1996, only a minority of respondents (10–20%) reported that new treatment options had reduced their concern about HIV infection. None the less, a significant minority of gay men surveyed (30% in a 1998 London study, 16% in a 2000 French study, and 13% in a 1997 United States study) reported viewing HIV/AIDS in a less serious light since the introduction of HAART.

While the availability of HAART might be a contributing factor, other explanations seem to weigh as strongly. In settings where antiretroviral therapy is widely available, the intensity and visibility of prevention efforts directed at men who have sex with men have waned in recent years, along with the prevention and treatment of other sexually transmitted infections. It is possible, too, that prevention campaigns have grown too generic to strike the appropriate chords throughout communities that are as socially stratified as the rest of society.

The mounting impact

The mounting impact

Twenty years after the world first became aware of AIDS, it is clear that humanity is facing one of the most devastating epidemics in human history—one that threatens development in major regions of the world.

Since the 1960s, most countries have made impressive strides in human development. However, such achievements are being undermined as countries lose young, productive people to the epidemic, economies stumble, households fall into deeper poverty, and the costs of the epidemic mount. Despite this devastation, however, it is clear that the epidemic is still in its early stages.

Countries that fail to bring the epidemic under control risk becoming locked in a vicious circle as worsening socioeconomic conditions render people, enterprises and communities even more vulnerable to the epidemic. The impact of AIDS on societies and economies, however, can be dealt with. Whether through community action or national programmes, institutions can be retooled and capacity can be built to defend societies' from the worst ravages of AIDS.

The demographic impact

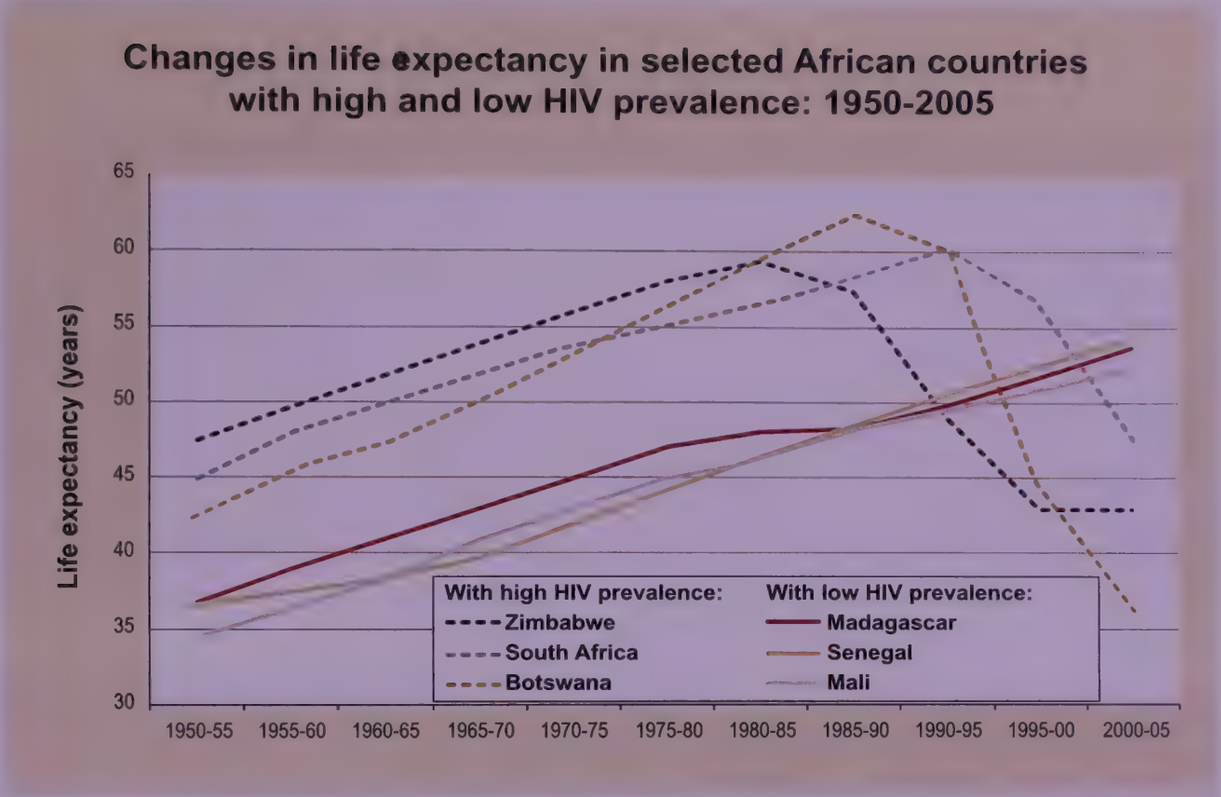
Since the epidemic began, more than 60 million people have been infected with the virus. HIV/AIDS is now by far the leading cause of death in sub-Saharan Africa, and the fourth-biggest global killer. In 2001, the epidemic claimed about 3 million lives.

Life expectancy is still falling

In many countries, AIDS is erasing decades of progress made in extending life expectancies. Average life expectancy in sub-Saharan Africa is now 47 years, when it would have been 62 years without AIDS. Life expectancy at birth in Botswana has dropped to a level not seen in that country since before 1950. In other African countries, life expectancy has dropped less severely, but it is still significantly below what it would have been without AIDS. Figure 8 illustrates the steep drop in life expectancy in three high-prevalence countries, compared to the steady increase in countries with significantly lower HIV prevalence.

The impact of AIDS on life expectancy, which signifies a major blow to a society's development, has spread beyond Africa. Haiti's life expectancy in 2000–2005 is nearly six years less than it would have been in the absence of AIDS. In Asia, Cambodia has experienced a reduction of four years.

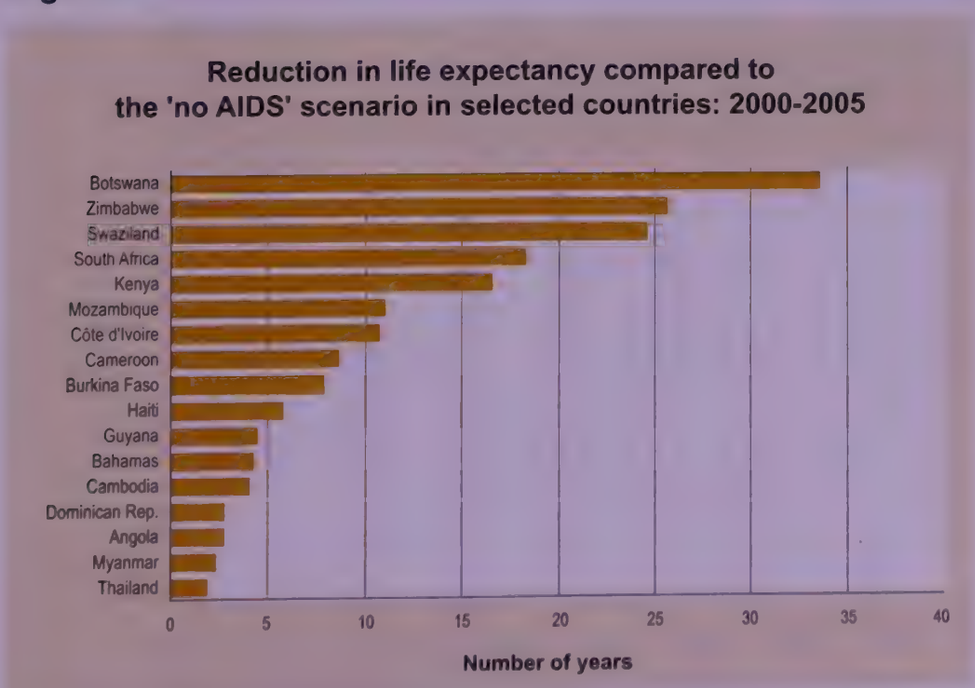
Figure 8



Source: UN Department of Economic and Social Affairs (2001) *World Population Prospects, the 2000 Revision*

Current HIV prevalence levels merely hint at the much greater lifetime probability of becoming infected with HIV. In Lesotho, for instance, it is estimated that a person who turned 15 in 2000 has a 74% chance of becoming infected with HIV by his or her 50th birthday. Even relatively low prevalence today can mean high odds of contracting HIV. In Guyana, where adult prevalence is 2.7%, the probability of contracting HIV between the ages of 15 and 50 in 2000–2035 is 19%. High as they are, these estimates are conservative, and assume that HIV infection rates will decline in the future, as stronger prevention efforts bear fruit.

Figure 9



Source: UN Department of Economic and Social Affairs (2002) *World Population Prospects, the 2000 Revision*

The death toll rises

In the 45 most affected countries, it is projected that, between 2000 and 2020, 68 million people will die earlier than they would have in the absence of AIDS. These projections are based on the assumption that prevention, treatment and care programmes will have a modest effect on the growth and impact of the epi-

demic in most countries over the next two decades. The assumptions do not include a reduction in the annual number of newly infected people, which would result from vaccination with a possible future vaccine or from use of other possible future technological advances. Nor do they include the potential effect of large-scale future access to antiretroviral therapy on the survival of people living with HIV/AIDS.

The projected toll is greatest in sub-Saharan Africa, where 55 million additional deaths can be expected—39% more deaths than would be expected in the absence of AIDS.

AIDS has a particularly strong impact on mortality among children between the ages of one and five. Most children who are infected at birth or through breastfeeding will develop AIDS and die before their fifth birthday. In the worst affected countries, HIV/AIDS has had a major impact on child survival. In seven countries in sub-Saharan Africa, under-five mortality has increased by 20–40% due to HIV/AIDS.

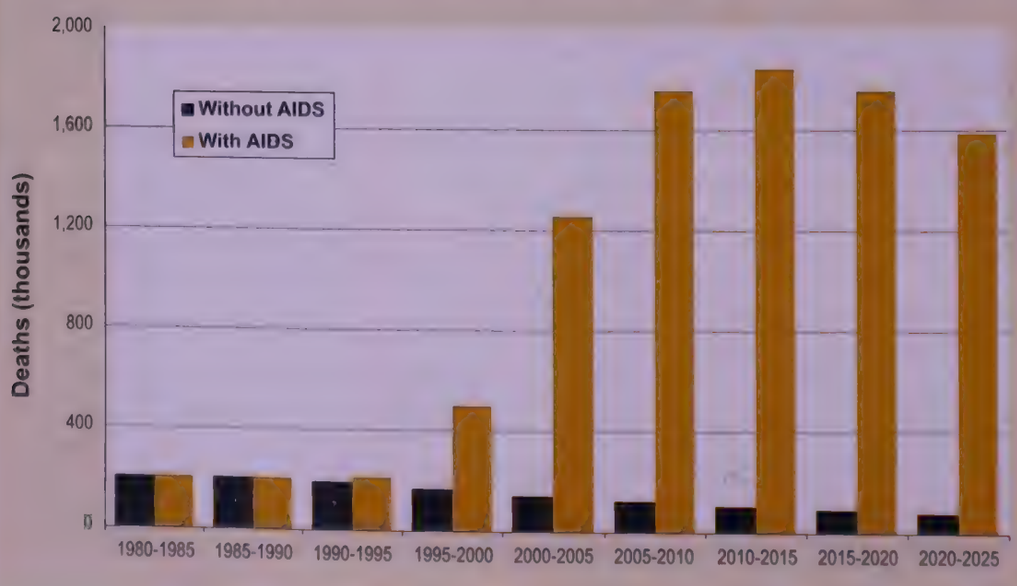
The future is not what it used to be

In the young democracy of South Africa, where HIV prevalence rose swiftly in the 1990s, the number of AIDS-related deaths among young adults is projected to peak in 2010–2015. It is estimated that there will be more than 17 times as many deaths among persons aged 15–34 as there would have been without AIDS, as Figure 10 illustrates.

Even in countries where the prevalence of HIV/AIDS is lower, the number of deaths among 15–34-year-olds is high in relation to the number that would have occurred in the absence of AIDS. Thus, it is approximately 2.5 times higher in the Bahamas and Guyana, and twice as high in the Dominican Republic and Thailand.

Figure 10

Estimated and projected deaths at ages 15-34, with and without AIDS in South Africa: 1980-2025



Source: UN Department of Economic and Social Affairs (2002) *World Population Prospects, the 2000 Revision*

Declaration of Commitment

By 2003, evaluate the economic and social impact of the HIV/AIDS epidemic and develop multisectoral strategies to: address the impact at the individual, family, community and national levels; develop and accelerate the implementation of national poverty eradication strategies to address the impact of HIV/AIDS on household income, livelihoods and access to basic social services [...] (paragraph 68).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

The impact on households

The toll of HIV/AIDS on households can be very severe. In many cases, the presence of AIDS means that the household will dissolve, as parents die and children are sent to relatives for care and upbringing. A study in Zambia revealed that 65% of households in which the mother had died had dissolved. But much happens to a family before this dissolution occurs; HIV/AIDS strips the family of assets and income-earners, further impoverishing those already poor.

In Zambia, AIDS has led to a rapid transition from relative wealth to relative poverty in many households. Research shows that, in two-thirds of families where the father had died, monthly disposable income fell by more than 80%. A study in Côte d'Ivoire revealed that income in affected households was half that of the average household income. This was often the result not only of the loss of income due to illness among household members, but also because other members had to divert more time and effort away from income-generating activities. A study of three countries (Burkina Faso, Rwanda and Uganda) has calculated that AIDS will not only reverse efforts to reduce poverty, but will increase the percentage of people living in extreme poverty from 45% in 2000 to 51% in 2015. In Botswana, per capita household income for the poorest quarter of households is expected to fall by 13%, while every income-earner in this category can expect to take on four more dependents as a result of HIV/AIDS.

Loss of income, additional care-related expenses, the reduced ability of caregivers to work, and mounting medical fees and funeral expenses collectively push affected households deeper into poverty. According to a study in Côte d'Ivoire, health-care expenses rose by up to 400% when a family member had AIDS. The hardship does not end there. Studies in Thailand and the United Republic of Tanzania show that the financial burden of death can be far greater than that of illness. Households there have reported spending up to 50% more on funerals than on medical care. Traditions in many societies require that relatives and community members gather (sometimes for several days) at the home of the deceased to mourn and support the bereaved. In many cases, lengthy journeys are required to reach a burial place.

Three main coping strategies appear to be adopted among affected households. Savings are used up or assets sold; assistance is received from other households; and the composition of households tends to change, with fewer adults of prime working age in the households.

Tapping into savings and taking on more debt (often in the form of cash transfers or loans from extended family members and local community) are usually the first recourse by households that struggle to pay for medical treatment or funeral costs. In an ongoing study in the Free State Province of South Africa, households used up, on average, 21 months of savings to pay for medical expenses and funerals. In the United Republic of Tanzania, a case study has revealed that, in households where one person was ill because of AIDS, 29% of savings were redirected to cope with the illness.

As debts mount, precious assets, such as bicycles, livestock and even land, are sold. Once households are stripped of their productive assets, the odds of them recovering and rebuilding their livelihoods grow ever slimmer. A study in Chiang Mai, Thailand, revealed that 41% of AIDS-affected households reported having sold land, 57% used up their savings and 24% had borrowed from a cooperative or other type of locally-run fund. In response, many households restructure themselves: dependent children might be sent to live with relatives, or relatives may join the household to assist in household or farming tasks. One of the more unfortunate responses to a prime-age-adult death in poorer

Making a difference

Social protection programmes that support people, households and communities hard hit by the epidemic make a huge difference. Given the heavy burden the epidemic places on women as caretakers and breadwinners, new safety nets are needed. Microcredit schemes that take account of women's special needs can be important tools that also help make local social relations more equitable. Microfinance programmes, such as the African Microenterprise AIDS Initiative, have provided opportunities for women to operate business ventures and to fashion relatively autonomous livelihoods. This helps them to generate enough household income to organize their work schedules around HIV-related care demands. Equally valuable are subsidy and bursary initiatives that enable girls to attend school and pursue their education.

Extraordinary efforts are needed to provide for children orphaned by the epidemic, especially in the form of measures that afford them access to education, food, health care and other social support (see 'Focus: AIDS and orphans'). Chikankata Health Services, a church-based organization in central Zambia, is one of many projects that have stepped into that breach. Staff set up the Community-Based Orphan Support Project in 1995, with support from the United Nations Children's Fund (UNICEF), to offer educational and medical support to orphans from five communities. It now assists 1500 orphans, and facilitates local income-generating projects for other residents. In Malawi, meanwhile, the country's National Orphan Task Force developed guidelines for the care of orphans as early as 1992. Operating in the ambit of those guidelines are several initiatives that link nongovernmental and community-based organizations with government structures and district authorities as they plan and introduce orphan programmes. Government extension workers belong to Community Orphan Care Committees, and help communities set up or maintain small farming operations.

households is that of removing the children (especially girls) from schools as school uniforms and fees become unaffordable and the girls' labour and income-generating potential are required in the household.

Almost invariably, the burden of coping rests on women as the demands for their income-earning labour, household work, child-care and care of the sick multiply. As men fall ill, women often step into their roles outside the homes; in parts of Zimbabwe, women are moving into the traditionally male-dominated carpentry industry, for example. Despite the dependency on women at the household level, two studies in Côte d'Ivoire and Thailand (in the late 1990s) show that more money tends to be spent on health care for men who become ill with HIV/AIDS than on women.

Going hungry: the impact on food security

HIV/AIDS poses a potentially major threat to food security and nutrition, mainly by diminishing the availability of food (due to falling production, and loss of family labour, land, livestock and other assets) and reducing access to food as households have less money. Research in the United Republic of Tanzania has shown that individuals' food consumption dropped by 15% in the poorest households after the death of an adult. The prospect of widespread food shortages and hunger is real. Some 20% of rural families in Burkina Faso are estimated to have reduced their agricultural work or even abandoned their farms because of AIDS. In Ethiopia, AIDS-affected households were found to spend between 11.6 and 16.4 hours per week performing agricultural work, compared with a mean of 33.6 hours for non-AIDS-affected households.

With fewer people available to work in the fields, households often farm smaller plots of land or switch to less labour-intensive subsistence crops, which often have lower nutritional and/or market value. Although yields drop and incomes shrink, farming households may still cope, especially in areas where different crops can be planted throughout the year. Where one or two key crops must be planted and harvested at specific times of the year, however, losing even a few workers at the crucial planting and harvesting stages can scuttle production.

These kinds of difficulties are being experienced also in countries with lower national HIV prevalence rates and, in early 2002, they prompted the United Nations World Food Programme to coordinate a food donation scheme for families affected by HIV/AIDS in four Asian countries (Cambodia, China, Laos

Women are crucial to food security

Women contribute to over 50% of food production in sub-Saharan Africa and Asia, and typically carry out the most labour-intensive farming activities. In many regions, they are the linchpins of subsistence farming, which tends to be most vulnerable to the effects of HIV/AIDS. And they are also usually responsible for preparing food. Research carried out in Uganda in the 1990s showed that food insecurity and malnutrition ranked foremost among the immediate problems faced by many female-headed AIDS-affected households. These factors contribute to reduced consumption and less nutritious diets.

and Myanmar). A similar plan was being proposed for southern Africa. The World Food Programme has also run food security projects for women widowed as a result of AIDS (in Zambia).

Since nutrition requires an integrated approach to household food security, health and care, it forms a logical entry point for helping affected communities to cope with the epidemic. Securing the right of women and children to retain the land and assets of a deceased husband/father, for example, helps households cope. Other remedies include promoting less labour-intensive crops that still serve as nutritious food sources, and setting up or expanding school-based feeding programmes. For example, UNICEF is extending the role of schools as community resource centres—an initiative that complements the World Food Programme's proposal that school-based feeding programmes include 'take-home rations'.

Early responses bring high rates of return

The most potent way to avert the devastating impact of HIV/AIDS is to act before the epidemic spins out of control. Calculations of the rates of return on Thailand's investments in HIV/AIDS prevention suggest that, in 1990–2020, the avoided medical expenditures alone would have meant rates of return in the order of 12–33% for that period. If averted income losses are added (as additional benefits that stem from the reduced numbers of AIDS deaths), the rate of return rises to 37–55%. Brazil's widely praised efforts to provide universal treatment and care, in addition to its well-planned prevention programmes, are estimated to have avoided 234 000 hospitalizations in 1996–2000.

The impact on the health sector

In all affected countries, the HIV/AIDS epidemic is bringing additional pressure to bear on the health sector. In countries where per capita health expenditure is low, extending prevention and care for sexually transmitted infections, counselling and testing, prevention of mother-to-child transmission services, and HIV treatment and care strains health budgets and systems. As the epidemic matures, the demand for care of those living with HIV/AIDS rises, as does the toll taken among health workers. In sub-Saharan Africa, the annual direct medical costs of AIDS (excluding antiretroviral therapy) have been estimated at about US$30 per capita, at a time when overall public health spending is less than US$10 for most African countries. Even in high-income countries that appear to be holding the epidemic at bay, the pressure on health budgets and health insurance schemes is significant. At the turn of the century, the direct medical costs of treating HIV/AIDS patients in the European Union ranged from about US$3400 per person annually, in the early stages of symptomatic HIV infection, to more than US$50 000 in the latter stages of AIDS.

Health-care services face different levels of strain, depending on the number of people who seek services, the nature of the demands for health care, and the capacity to deliver that care. In the early stages, HIV-infected persons (often experiencing common bacterial infections) tend to use primary-health-care and outpatient services.

As HIV infection progresses to AIDS, there is an increase in total hospitalizations related to HIV/AIDS. The 2001 Swaziland Human Development Report estimated that people living with HIV/AIDS occupied half the beds in some health-care centres in that country. HIV prevalence among hospitalized patients was almost 33% in one Tanzanian hospital, making HIV infection the major cause of illness leading to hospitalization. In Zimbabwe, 50% of all inpatients in wards studied were infected with HIV. Without major interventions, the problem will worsen. The World Bank estimates that the number of hospital beds needed for AIDS patients could exceed the total number of beds available in Swaziland by 2004 and in Namibia by 2005.

Hospital occupancy rates, though, can underestimate the impact on health services, since hospitals in some areas might already be operating above capacity. Several studies have suggested that the epidemic is having a negative impact on the overall quality of care provided. A shortage of beds, for example, means that people tend to be admitted only at the later stages of illness, reducing their chances of recovery, as some Kenyan hospitals have discovered. Lengthy hospital stays are being reported in Botswana's hospitals, meanwhile, along with staff shortages and staff burnout. Up to 30% more time is being spent diagnosing and investigating cases that have grown more complex as the epidemic intensifies. Demands for counselling have increased, while hospital expenses on drugs, linen, blood, and HIV and other tests have risen by up to 40%. Beyond the increased burden on hospitals and health-care facilities, there will be a significant increase in costs for basic health care as the epidemic expands. At the same time, the demand for health services is expanding and more health-care personnel are being affected by HIV/AIDS. Malawi and Zambia, for example, are experiencing 5–6-fold increases in health-worker illness and death rates. To compensate, the training of doctors and nurses would have to increase by an estimated 25–40% in 2001–2010 in southern Africa, for example. Increased workloads and stress might also spur emigration by health professionals. Recognizing the need to buttress the health sector, African leaders attending the Organization of Africa Unity's special summit on AIDS in April 2001 pledged to allocate 15% of their total annual budgets to health care.

The emergence of community-rooted home-care initiatives, often organized by people living with HIV/AIDS, have become one of the outstanding features of the epidemic and a key coping mechanism for mitigating impact. Although initiated by communities and often operating from a religious or non-governmental organization base, the effectiveness of home-based care depends on support from formal health, welfare and other social sectors. A recent exercise calculating the likely cost of providing home-based care and support countrywide in South Africa concluded that, while not cheap, it is an affordable option (see 'Treatment, care and support' chapter).

The impact on the education sector

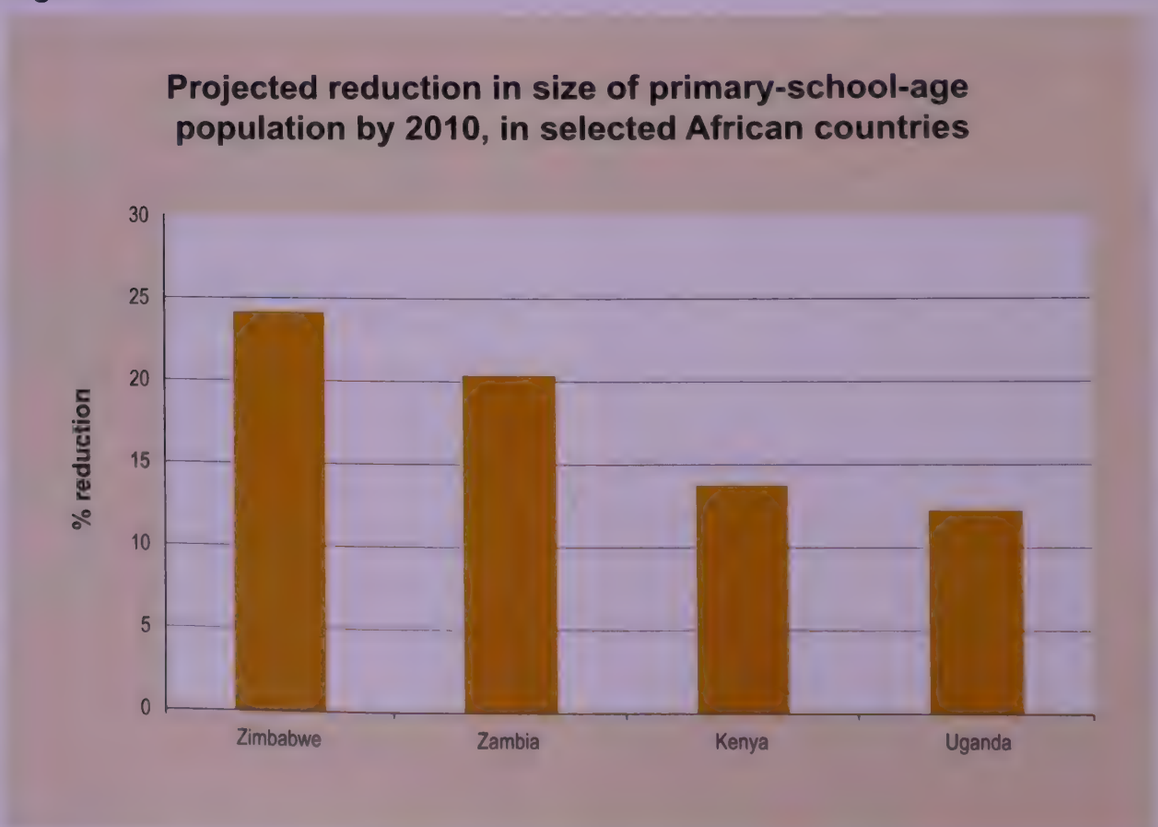
The extent to which schools and other education institutions are able to continue functioning (as part of the essential infrastructure of societies and communities) will influence how well societies eventually recover from the epidemic.

A decline in school enrolment is one of the most visible effects of the epidemic. The contributing factors include: the removal of children from school to care for parents and family members; an inability to afford school fees and other expenses; AIDS-related infertility and a decline in birth rate, leading to fewer children; and the fact that more children are themselves infected and do not survive through the years of schooling (see Figure 11).

According to research by the Health Economics and AIDS Research Division of the University of Natal in South Africa, for example, the number of pupils enrolling in the first year of primary school in 2001 in parts of KwaZulu-Natal Province was 20% lower than in 1998. Economic hardship was a major factor in this reversal, but the study also suggests that some children were not living long enough to enter school. In the Central African Republic and Swaziland, school enrolment is reported to have fallen by 20–36% due to AIDS and orphanhood, with girls most affected.

AIDS is also hampering the ability of education systems to perform their basic social mandates, as more teachers succumb to the disease. A recent study in Manicaland, Zimbabwe,

Figure 11



Source: World Bank, 2000

found that 19% of male teachers and almost 29% of female teachers were infected with HIV—almost exactly the same proportion as among working men and women in the general population. According to the South African Democratic Teachers Union, nationwide AIDS-related deaths among teachers rose by over 40% in 2000–2001, as calculated from claims to the union's funeral plan between June 2000 and May 2001. Illness or death of teachers is especially devastating in rural areas, where schools often depend heavily on one or two teachers. Moreover, skilled teachers are not easily replaced. Swaziland has estimated that it will have to train 13 000 teachers over the next 17 years just to keep services at their 1997 levels—7000 more than it would have to train if there were no AIDS deaths.

While the loss of teachers and administrators directly affects the quality of education, there is also the danger that demands on the health and welfare services might divert resources from education to other sectors. The costs associated with training new teachers and hiring substitute teachers will also strain budgets, crowding out investments in infrastructure, materials and human resources. Such improvements are especially necessary for countries aiming to compete in an increasingly knowledge-based world economy.

Among the efforts to avert such outcomes is the World Bank's Ed-SIDA Initiative. Along with creating tools for proactive planning and management, the scheme trains education planners to model changes in the supply of, and demand for, education. Examples include making projections of teacher illness and mortality, calculating whether there will be sufficient teachers to meet education goals, and analysing the changing realities and needs of students. To date, planners from 10 African countries have participated in Ed-SIDA training, and the Initiative is being extended into other countries in sub-Saharan Africa.

Going beyond the obvious: adapting education

AIDS makes it necessary to devise new ways of turning education against the epidemic. School planners and policy-makers envision alternative forms of schooling, such as schooling structured around modules and semesters rather than around age-linked grades.

With a project in 11 African countries, the US Agency for International Development (USAID) helps schools emphasize classroom-based prevention, life-skill messages, as well as programmes for children who have dropped out of school to care for ailing parents or because they must work to support the household. Among the interventions is an interactive radio education programme that was piloted in Zambia in order to provide an education for orphans and vulnerable children. The AIDS Support Organisation (TASO)—a Ugandan group that has traditionally provided support for people living with HIV/AIDS—found that the major concern of parents caring for orphaned and vulnerable children was the costs associated with attending school. TASO now supports 232 primary, secondary and vocational education students by providing school fees and teaching materials. The programme also trains teachers in basic counselling skills and offers child/guardian workshops so that guardians and children have a forum for discussing, and finding solutions to, their problems. Calling on retired teachers offers another means of coping with education systems strained as a result of AIDS.

Impact on enterprises and workplaces

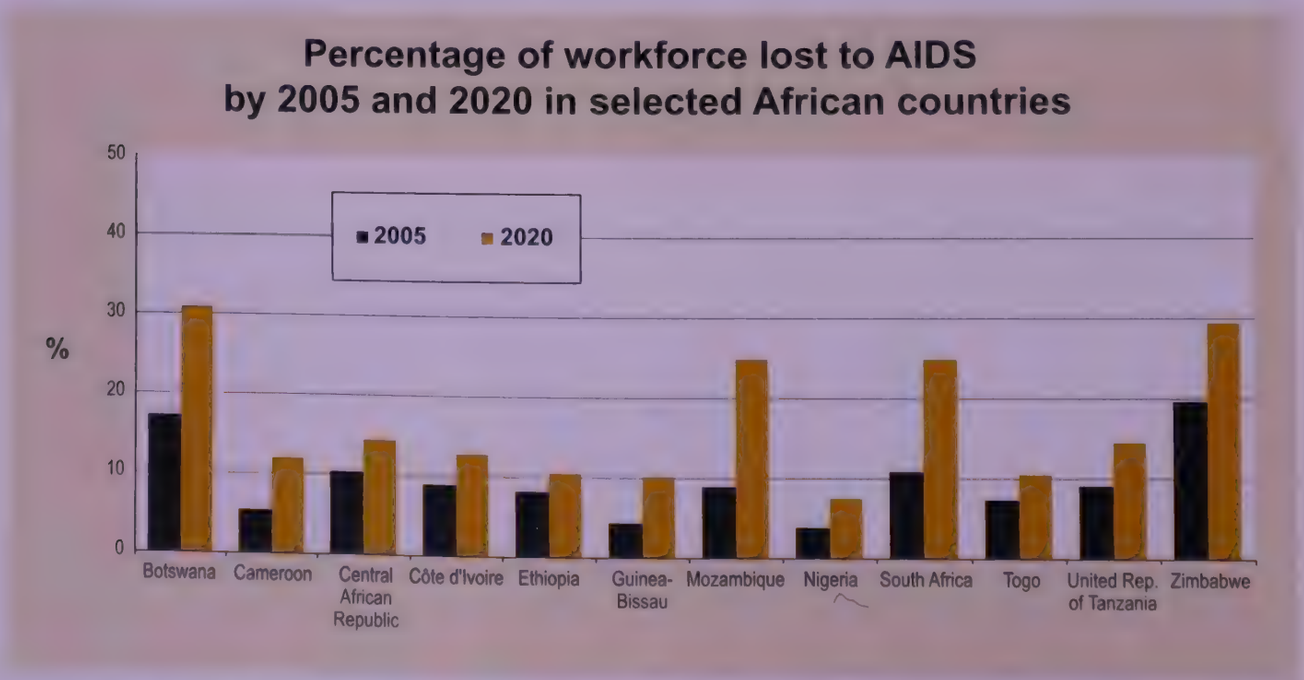
HIV/AIDS dramatically affects labour, setting back economic activity and social progress. The vast majority of people living with HIV/AIDS worldwide are between the ages of 15 and 49—in the prime of their working lives.

Productivity and profitability are core concerns for enterprises, large and small. AIDS weakens economic activity by squeezing productivity, adding costs, diverting productive resources, and depleting skills. In addition, as the impact on households grows more severe, market demand for products and services can shrink. The epidemic hits productivity mainly through increased absenteeism, organizational disruption, and the loss of skills and 'organizational memory'. Rising absenteeism tends to push visible costs up while forcing productivity down, putting profits at risk. Production cycles can be disrupted, equipment stands idle and temporary staff may need to be recruited and trained. Comparative studies of East African businesses have shown that absenteeism can account for as much as 25–54% of company costs. Quality control of products and services often suffers, which can erode the customer base.

A study in several southern African countries has estimated that the combined impact of AIDS-related absenteeism, productivity declines, health-care expenditures, and recruitment and training expenses could cut profits by at least 6–8%. NamWater, Namibia's largest water purification company, has reported that HIV/AIDS was hindering its operation as absenteeism rose and productivity rates dropped.

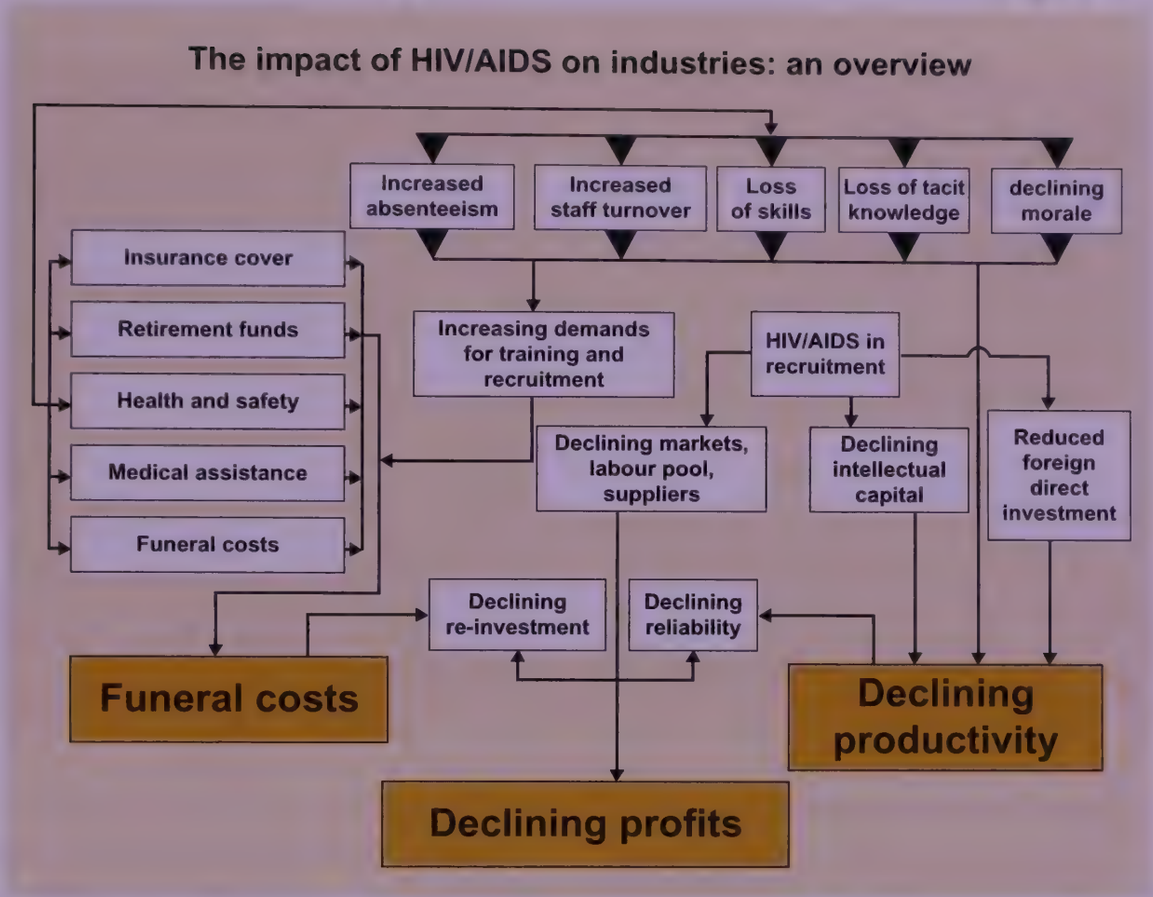
The impact on informal enterprises can be especially harsh. When the lead entrepreneur

Figure 12



Sources: ILO (2000) POPILO population and labour force projection; UN Department of Economic and Social Affairs, Population Division (1998) *World Population Prospects: the 1998 Revision*

Figure 13



Source: UNAIDS (2000) Adapted from *The Business Response to HIV/AIDS: impact and lessons learned*

is no longer able to work, there is a high risk that the entire enterprise will collapse.

High rates of absenteeism, morbidity and mortality trigger increasing disorganization in workforces, as a result of rising staff turnover, loss of skills, and weakened morale. A study of a bus company in Zimbabwe showed that AIDS-related absenteeism accounted for 54% of all AIDS-related costs, followed by HIV-related symptomatic illness at 35%. Loss of know-how tends to be the most often-cited cost factor on the shop floor. Thus, even in high unemployment areas (with an apparently 'bottomless' pool of unskilled or semi-skilled labour), the drain on visible and invisible skills and knowledge ends up being considerable. The ensemble of effects is illustrated in Figure 13. To respond to these problems, companies must invest in increased training and recruitment.

Company costs for health-care, funeral benefits and pension fund commitments are likely to rise unexpectedly as early retirements and deaths mount. A study of a commercial agricultural estate in Kenya showed that AIDS-related medical expenditure surpassed projected expenses by 400%. Funeral costs are also provided by a number of employers, especially in Africa, and these are rising sharply. However, these effects are not confined to countries of the South. In the United States of America, the Centers for Disease Control and Prevention has reported that firms with around 1000 employees found that the five-year cost to their business ranged from US$17 000 to US$32 000 for each worker with HIV. Supporting prevention programmes therefore makes good economic sense. Health-care provision is also a good investment since it limits or prevents sickness and absenteeism.

What can be done

In 1999/2000, Botswana's diamond mining company, Debswana, carried out an institutional audit to gain a more detailed picture of the epidemic's impact on the company and its operations. It discovered that retirements due to ill health and AIDS-related deaths had risen markedly. In 1996, 40% of retirements and 37.5% of deaths among workers were due to HIV/AIDS; by 1999, the proportion had risen to 75% and 59% respectively. Company hospitals were also recording more admissions of workers with HIV/AIDS-related conditions. A concerted response was called for.

The audit examined skill levels, ease of training and replacement of relevant skills, as well as the related costs. It analysed risk-reduction strategies for critical posts, estimating liabilities and costs associated with benefits, developing systems of productivity monitoring, and considering potential treatment options and costs. The result was a landmark policy to cover 90% of the cost of antiretroviral treatment for workers and their spouses, and to require suppliers of goods and services to the company to have AIDS programmes in place. In addition, prevention measures were given top priority.

Ignoring the potential impact?

Many enterprises still do not regard the epidemic as a major threat. Rapid assessments carried out by ILO in enterprises of various sizes and sectors surveyed managers' perceptions of the epidemic. In South Africa, while more than 60% saw the epidemic as a very serious threat at national level, only about 20% thought it seriously threatened their enterprises. Of those employers alert to the problem (especially in the transport, mining and manufacturing sectors), most said it already affected productivity and the effects were visibly increasing costs. Although enterprises in trade and finance reported little visible impact on their health bills, most said they were affected by increased absenteeism (see 'Focus: AIDS and the world of work').

Macroeconomic impact: real but elusive

Through its impact on the labour force, households and enterprises, HIV/AIDS can act as a significant brake on economic growth and development. Reliable knowledge of the impact of HIV/AIDS on the national economy and its various sectors and participants is valuable for effective national strategic planning and necessary for strong advocacy.

A range of studies agrees that the net effect of the epidemic on per capita gross domestic product (GDP) growth is negative and possibly substantial. For those countries with national HIV/AIDS prevalence rates of 20%, annual GDP growth has been estimated to drop by an average of 2.6 percentage points. More recent calculations have suggested that the rate of economic growth has fallen by 2–4% in sub-Saharan Africa as a result of AIDS. Meanwhile, nationally-focused studies have forecast that, by 2015, the economies

of Botswana and Swaziland would grow by 2.5 and 1.1 percentage points less, respectively, than they would have in the absence of the epidemic. Long-term scenarios developed for Mozambique indicate that AIDS would reduce gross domestic product and could discourage foreign and domestic investors.

By the beginning of the next decade, South Africa, which represents about 40% of sub-Saharan Africa's economic output, faces a real gross domestic product 17% lower than it would have been without AIDS. One study has forecast that South Africa's economy would grow 0.3–0.4% less annually in 2000–2015, than it would have in the absence of the AIDS epidemic. Research has also shown that, despite the fact that AIDS would have the most impact on relatively unskilled sections of the labour market, unemployment levels would remain largely unchanged. According to an annual investor survey by BusinessMap SA, the AIDS epidemic has increased the risk profile for investment in southern Africa. Investors now seek premium rates of return of 15–20% in South Africa and an even higher 25% or more in the rest of the region.

The economic impact is forecast to hit home on other continents, too. Research at the University of the West Indies has estimated that AIDS could cause an average 5% loss of GDP by 2005 in Jamaica and Trinidad and Tobago. One study has projected that gross domestic product in 2005 would be around 4.2% lower in the Caribbean than it would have been in the absence of the epidemic.

More research is required to achieve greater precision in the modeling of macroeconomic impact. It is particularly important to distinguish the impact of AIDS on weakening economies from other negative factors such as declining terms of trade, heavy debt burdens and the effects of structural adjustment, weak governance systems, political instability and conflict. Per capita calculations can also disguise and underestimate the human impact of AIDS. The epidemic kills people, as well as eroding economic productivity. In settings where informal economic activities (including subsistence agriculture) feature strongly, measured economic output only scratches the surface of the total impact of HIV/AIDS on livelihoods, food security, community welfare and the destinies of societies.

Security at risk

AIDS generates more demand for resources and services at all levels of society, while simultaneously weakening the underpinnings of the economy and the State. On the economic and development fronts, several of the worst-affected countries were already struggling with daunting development challenges, excessive debt burdens and declining terms of trade before the epidemic hit. This is most obvious in many sub-Saharan African countries, but is increasingly becoming the case in some countries of the former Soviet Union where socioeconomic setbacks have accompanied economic restructuring. HIV/AIDS is exacerbating these frailties in numerous ways. If effective responses are not introduced and the epidemic is allowed to grow unchecked, its multiple effects could cascade across society, heightening the risk of insecurity, as policy-makers are now beginning to discover.

Recognizing the security implications of HIV/AIDS, the UN Security Council made history in January 2000, when, for the first time, it debated a health issue. By subsequently adopting Resolution 1308 (2000), it highlighted the potential threat the epidemic poses for international security, particularly in conflict and peacekeeping settings.

Chain reaction

In any country, stability and progress depend on social cohesion. Citizens need to trust the rule of law, they need to believe that the State protects their most basic interests, and they need to know that they and their children can look forward to improved standards of living. The AIDS epidemic weakens many of these pillars of social cohesion. This is because HIV/AIDS, along with other factors (such as conflict and economic stagnation), can have a destructive effect on human security (i.e., on people's right to safety from the threats of hunger, disease and repression). This is especially important in light of the fact that many countries in both the region with the fastest growing epidemic (Eastern Europe) and the region with the highest national HIV prevalence rates (sub-Saharan Africa) are fledgling democracies, where restructured State bureaucracies are trying to foster the trust of citizens.

In many of the countries worst affected by HIV/AIDS, States' capacities to support households have suffered in the past two decades. By adding further pressure to national budgets and by weakening State institutions, the epidemic makes it even more difficult for the State to perform one of its primary duties: protecting citizens from human suffering, including hunger, disease and destitution. The epidemic does not spare the educated and skilled personnel who administrate and manage State and other large institutions. In Zambia, nearly two-thirds of deaths among managers have been found to be attributable to AIDS, while an ING Barings study has forecast that 23% of South Africa's skilled workforce will be HIV-positive by 2005. As the provision of essential services falters (most obviously in health, education, welfare and justice) the poor and most vulnerable households endure the worst of the consequences. Even where traditional or new, locally-based social safety nets manage to hold, the failure of the State to adequately support these community-driven coping systems can dent its legitimacy.

The epidemic's potential impact on the rule of law is especially important. Although statistics are hard to come by, attrition rates among staff serving in law and order institutions in high-prevalence countries appear to be on par with those in other sectors (such as education and health). In Kenya, for example, it is estimated that AIDS accounts for up to three-quarters of all deaths in the police force (see 'Prevention' chapter). The sector also includes judges, prosecutors, court clerks and lawyers—all players in maintaining the rule of law and sociopolitical stability.

A State less able to provide social services (be they education, health or justice) may unwittingly foster political alienation and weaken its own political legitimacy. Through its impact on both State and community capacity, AIDS can thus contribute to social disruption and perhaps even civil unrest. Such disruption invariably hurts the most vulnerable sections of society. Children orphaned as a result of AIDS, for example, are left especially vulnerable in such circumstances and, in some settings, can be lured into military/paramilitary

activities with the prospect of 'family' bonds and the promise of food and consumer commodities.

But not all is gloom. In many countries, the epidemic is provoking new forms of mobilization as social networks and organizations emerge to confront AIDS and this, in turn, is invigorating civil society, as this report shows. Community-based support networks are mobilizing themselves around the epidemic, and social rights groups are advocating treatment access, protection of human rights and improved socioeconomic conditions. The initiatives mounted by community and other popular forces (and supported by the State and private sector) have proved crucial in those countries battling the epidemic. In all these cases, people have chosen to act not on the basis of fear and denial, but of compassion and solidarity.

Breaking the cycle

Given the uniquely devastating impact of HIV/AIDS on households, communities and entire societies, national policies and poverty-reduction strategies need to be adjusted and expanded accordingly. Unless this happens, AIDS will continue to erode human development achievements, deepen poverty, and further hinder access to education, health and viable livelihoods.

Building human capacity to respond to HIV/AIDS

However carefully compiled and tallied, data can only hint at the epidemic's human impact, whether at the global, societal, familial or individual level. Mobilizing and building the human capacity to cope with, and overcome, the effects of HIV/AIDS is therefore an essential part of an effective response.

Often, circumstances have led policy-makers and social leaders to enlist community members as leaders of initiatives, rather than positioning them at the receiving end as mere 'beneficiaries' or 'clients'. In Zambia, for example, a National Facilitation Team has been formed to ensure that local responses are nurtured and expanded. Participating members of the Team are drawn from national and local networks and organizations that are keen to develop human capacity as part of their response to HIV/AIDS. The Team is developing innovative ways of transferring knowledge,

Declaration of Commitment

By 2003, integrate HIV/AIDS prevention, care, treatment and support and impact-mitigation priorities into the mainstream of development planning, including in poverty eradication strategies, national budget allocations and sectoral development plans (paragraph 38).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

enabling networks and organizations to learn from local experiences. Facilitating the Team's work are the Community Health Association of Zambia and the Salvation Army, with support from UNAIDS.

Within the education sector, HIV/AIDS has taken its toll on both teachers and pupils. The United Nations (UNICEF, UNESCO, WHO and the World Bank) began the FRESH (Focus Resources on Effective School Health) Partnership, which collaborates with education trade unions affiliated with Education International, ministries of education and teachers' associations, to help strengthen the capacity of teachers to both reduce their own HIV risks and provide HIV/AIDS-related prevention services to their students. Only by directly confronting the issues of teacher shortages and student risks will the two-sided crisis within the education sector be addressed.

In the Caribbean—the second-most affected region in the world—moves are under way to boost the human capacity to cope with the care-related needs generated by the epidemic. Formed to help meet these needs is the Caribbean HIV/AIDS Regional Training network. It aims to involve communities and individuals directly affected by HIV/AIDS in the training of service providers. Countries that have demonstrated strengths in certain areas of service will serve as hubs for training initiatives among neighbouring States. The goal is to further strengthen local capacity, rather than relying on temporary human resources imported from elsewhere.

Defending public services and democratic governance

Special efforts are needed to ensure the maintenance of essential public services. Equitable access to essential public services is vital, which makes the abolition of user fees for basic services for poor people all the more urgent. The impact of HIV/AIDS on public services must be taken into account in terms of both the increased demand and the reduced capacity to deliver. Replacing skilled professionals is a priority, especially in low-income countries where governments depend heavily on a small number of policy-makers and managers for public management and core social services.

In Malawi, for example, the government has launched a major review of the impact of HIV/AIDS on human resources in the public sector and is preparing to introduce measures to maintain productivity and ensure support to employees affected by the epidemic. The government is considering setting up a system to better track morbidity, mortality and absenteeism in public services, as well as establishing a fund to help staff meet funeral costs and ensure fast-track training and recruitment of replacement staff. It is also adjusting human resource management policies to ensure that essential services are not disrupted, and is stepping up workplace prevention and care activities.

Intensified poverty reduction

Social and economic development strategies that are adapted to the unique challenge of HIV/AIDS are most likely to reduce poverty. For countries affected by AIDS, sustainable poverty reduction is not easily achieved unless macroeconomic policies, too, are geared towards:

- reducing inequalities;
- enhancing access to productive resources for wider segments of the population;

- increasing the discretionary budget (by, for example, reducing debt burdens);
- improving public expenditure on essential services, such as health education and provision of safe water;
- boosting employment opportunities; and
- strengthening social systems and infrastructures.

These are not new issues: AIDS simply makes them more urgent.

Initiatives such as the poverty-reduction strategies required for debt-relief schemes are more likely to yield lasting benefits if they feature commitments and targets specifically related to HIV prevention and care, as well as impact mitigation. These targets could include enhanced access to essential services for AIDS survivors (especially orphaned children), as well as greater food security. In Burkina Faso, for example, the Poverty Reduction Strategy Paper required for receiving debt relief includes HIV/AIDS as an important priority. Consequently, the government has decided to allocate part of its debt-relief savings towards HIV/AIDS prevention and support, providing additional resources and ensuring that the response to HIV/AIDS becomes a central part of the country's development agenda. Uganda's national Poverty Eradication Action Plan focuses especially on alleviating the impact of HIV/AIDS on households and communities. Resources from the country's Poverty Action Fund are channelled down to district and village level; there, they support surviving members of households affected by the epidemic through income-generating activities, microcredit programmes, training and improved access to schooling for orphans.

A more equitable global system

Many of the world's more marginalized countries also need long-term international solidarity, cooperation and financial support. More equitable investment and trade flows can help ensure that global economic progress also profits the world's poor. So, too, could higher levels of Official Development Assistance in support of poverty-reduction strategies and improvement of social services. Since 1990, official development assistance provided to the 28 countries with the highest adult HIV prevalence rates (more than 4%) have fallen by a third (see 'Meeting the need' chapter).

Admirable and potentially decisive steps have been taken in the past two years towards bringing HIV/AIDS under control. Evident for the first time is widespread political recognition of the crisis, along with the commitment to confront it. Dozens of AIDS strategies have been introduced or are being finalized. New partnerships are being forged, with local community organizations, as always, playing pioneering roles. Still, against the backdrop of havoc created by this epidemic, it is equally clear that much more needs to be done, without further delay.

Focus:
AIDS and human rights

In a world of AIDS, the lack of human rights protection can become a matter of life and death. Conversely, safeguarding those rights can enable people to avoid infection or, if already infected, to cope more successfully with the effects of HIV/AIDS.

HIV/AIDS has burrowed deeper into the social and economic fault lines of communities and societies, and it is widening those fissures further. Around the world, those most affected by HIV/AIDS are people and communities who have unequal access to fundamental social and economic rights. The denial of basic rights limits people's options to defend their autonomy, develop viable livelihoods and protect themselves, leaving them more vulnerable to both HIV infection and the impact of the epidemic on their lives.

It is therefore necessary to assess the epidemic in the context of human rights. Viewing the epidemic in this way also brings into sharper relief some of the prerequisites for an effective response: integrating principles, norms and standards as established in existing international human rights instruments, and using national and international rights institutions to realize these rights. Ghana's HIV/AIDS National Strategic Framework, for example, now has a chapter on creating an enabling environment, which identifies strategies for addressing human rights, as well as legal and ethical issues. Principles of non-discrimination are integrated into the strategy, which also prohibits mandatory testing.

Human rights that relate critically to reducing vulnerability to HIV/AIDS and mitigating the impact of the epidemic are found in existing human rights instruments, such as the Universal Declaration on Human Rights, the Covenant on Economic, Social and Cultural Rights, the Covenant on Civil and Political Rights, the Convention on the Elimination of all Forms of Discrimination against Women, and the Convention on the Rights of the Child.

Principles of non-discrimination, equality and participation are central to an effective HIV/AIDS strategy that integrates human

Declaration of Commitment

By 2003, enact, strengthen or enforce, as appropriate, legislation, regulations and other measures to eliminate all forms of discrimination against, and to ensure the full enjoyment of all human rights and fundamental freedoms by, people living with HIV/AIDS and members of vulnerable groups (paragraph 58).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

Table 2

Some key human rights principles	HIV/AIDS-related action	Relevant human rights instruments
The right to the highest attainable standard of physical and mental health	Ensure that HIV-prevention tools and services (such as treatment for sexually transmitted infections, provision of male and female condoms, and voluntary counselling and testing) are available, together with drugs for opportunistic infections, pain and suffering, and antiretrovirals. Ensure provision of the necessary health infrastructure and personnel.	• Article 25 of the Universal Declaration on Human Rights • Article 12 of the International Covenant on Economic, Social and Cultural Rights • Article 12 of the Convention on Elimination of all Forms of Discrimination against Women • Articles 24 and 25 of he Convention on the Rights of the Child
The right to information and education	Provide information and education relating to sexual health and HIV prevention.	• Article 19 of the Universal Declaration on Human Rights • Article 17 of the International Covenant on Civil and Political Rights • Article 37 of the Convention on the Rights of the Child
The right to privacy	Ensure that counselling and testing are voluntary, and that HIV test results are confidential; guarantee the right of non-disclosure to third parties.	• Article 12 of the Universal Declaration on Human Rights • Article 17 of the International Covenant on Civil and Political Rights • Article 37 of the Convention on the Rights of the Child
The right to share in scientific advances and their benefits	Ensure wider access to basic pain prophylaxis and antibiotics for the treatment of sexually transmitted infections and HIV-related conditions, as well as to HIV/AIDS-related treatment and therapies.	• Article 27 of the Universal Declaration of Human Rights • Article 15 of the International Covenant on Economic, Social and Cultural Rights

rights. More specifically, the most relevant human rights principles for protecting the dignity of people infected and affected by HIV/AIDS, as well as preventing the spread of infection, include: non-discrimination; the right to health; the right to equality between men and women; the rights of children; the right to privacy; the right to education and information; the right to work; the right to marry and found a family; the right to social security, assistance and welfare; the right to liberty; and the right to freedom of movement.

In the context of HIV/AIDS, governments have the obligation to respect, protect and fulfil human rights. A framework of accountability exists through the series of international instruments established over the past 50 years. Indeed, the past two years have seen wider recognition of HIV/AIDS-related interpretations of human rights frameworks:

- *General comment 14 on the right to Health* (May 2000), adopted by the Committee on Economic, Social and Cultural Rights, situates several key features of the right to health within the context of HIV/AIDS. These include the availability and acceptability of, and access to, functioning public health-care facilities, goods and services, and programmes.

- *The UN Commission on Human Rights Resolution 2001/33 on 'Access to medication in the context of pandemics such as HIV/AIDS'* recognizes that access to medication in the context of epidemics such as HIV/AIDS is fundamental to achieving the full realization of the right to the highest attainable standard of physical and mental health. The resolution calls upon States to pursue policies that promote the availability of HIV/AIDS-related medications in sufficient quantities and in ways that make them accessible to all.

Furthermore, the integral link between HIV/AIDS and human rights was recognized at the United Nations General Assembly Special Session on HIV/AIDS in 2001.

The international human rights framework provides a solid basis for individuals and organizations to drive home their demands for change and action, to claim and exercise their rights, to resist exclusion and marginalization, and to struggle for social justice.

Realizing rights

Unequal access to life-saving HIV treatments is a glaring human rights issue. It also affects the degree of stigma that persists, since HIV-related stigma and discrimination are largely due to the fact that HIV/AIDS is seen as incurable. Increasing access to medications therefore not only helps to realize the right to health and overcome inequities due to poverty it also changes attitudes.

Deploying rights principles, norms and standards, activists have won ground-breaking victories on this front.

In Costa Rica, local nongovernmental organizations helped a HIV-positive college student file a petition with the Supreme Court demanding combination therapy, which he could not afford. The court ruled in his favour,

triggering a dozen similar petitions. Within weeks, the national social security system was ordered to develop a plan for the provision of antiretroviral treatment to all citizens living with HIV/AIDS.

In Venezuela, Acción Ciudadana Contra el SIDA, together with health professionals, lawyers and AIDS activists, filed a suit in 1997 on behalf of a group of people living with HIV/AIDS who were covered by the Social Security System. The lawsuit alleged that the claimants were not receiving proper medical attention, as guaranteed by the National Constitution, the American Convention on Human Rights, and other conventions signed and ratified by Venezuela. The court upheld the lawsuit and ordered the Social Security System to provide free treatment to the plaintiffs. Countries in other regions are beginning to follow these examples as they move to realize the rights of people living with HIV/AIDS.

Protecting people at risk and those who are vulnerable

Groups affected by societal discrimination include women and children and, in many places, racial and ethnic groups, migrants and refugees. Other groups suffer discrimination because the activities they engage in are subject to criminal sanctions or social disapproval. Such people include those with different sexual orientations, as well as sex workers, drug users and prisoners (see 'Focus: AIDS and mobile populations' and the 'Prevention' chapter). For example, globally, a significant share of HIV infection occurs in male-to-male sex. Yet, dozens of countries still maintain laws that explicitly prohibit or regulate same-sex sexual relations. The effect is often that of stripping men who have sex with men of vital rights (including the right to access information and services that can protect them from the virus), leaving them highly vulnerable.

Around the world, women's enhanced physiological risk of HIV infection is compounded by economic deprivation, lack of employment opportunities, poor access to education, training and information, and sociocultural norms and practices. In sub-Saharan Africa, for example, prevalence among teenage girls in some countries is five times higher than that for teenage boys. Most of these infections occur as a result of unprotected heterosexual intercourse. Women's low economic and social status limits their power to negotiate the use of a condom, discuss fidelity with their partners, or leave risky relationships. Such disempowerment increases their vulnerability to HIV; the socioeconomic and sexual discrimination thus experienced by women can ultimately become life-threatening.

Research underscores these realities. In a study in Viet Nam, only 35% of women felt able to refuse their husbands sex, while a UNIFEM study on the impact of HIV/AIDS on communities in Zimbabwe revealed that, even if women were educated about HIV/AIDS, their economic dependence on men left them feeling 'helpless' to negotiate safe sex.

Sexual coercion and violence in all its forms, inside and outside marriage, in peacetime and in conflict, increase the threat of HIV infection for women and girls. In population-based

studies worldwide, 10–50% of women report physical assault by an intimate partner, and between one-third and one-half of physically abused women also report sexual coercion.

Indigenous women, refugees and displaced women, women of certain religious groups, women in migration and trafficked women are also among those most vulnerable, with the attendant HIV/AIDS risks. The impact of war on women and young girls can be particularly severe, with the relatively recent experiences of Bosnia, Croatia and Rwanda revealing again how rape and other forms of sexual abuse are frequently used as weapons of war.

Policies that reduce people's vulnerability and make it easier for them to choose safer behaviour are vital for an effective AIDS response. Income-generation schemes, improving women's employment opportunities and microfinance schemes are among the potential options for boosting women's economic

Fighting AIDS discrimination

The protection of human rights is critical to reducing the impact of the epidemic on people living with HIV/AIDS. Historically, AIDS discrimination was first witnessed in the victimization of seropositive individuals and in the intolerance and social ostracism inflicted on them. While these abuses regrettably still occur in all countries, responses based both on humanitarian and pragmatic considerations have been developed, and the list of successful HIV/AIDS-related human rights activism efforts has grown impressively.

In Mumbai, India, for example, the Lawyers Collective has successfully defended workers who lost their jobs on account of their HIV status. The Collective also raises public awareness about HIV/AIDS through public rallies, and mobilizes public opinion against stigma and discrimination. One of its significant achievements has been the upholding of a clause that allows people with HIV/AIDS to file their cases under a pseudonym. In New Delhi, meanwhile, the Population Council is helping set up HIV-Patient-Friendly Hospitals. The goal is to make hospitals more attuned to the needs of people with HIV/AIDS.

And in South Africa, the Centre for the Study of AIDS at the University of Pretoria is working to foster a climate for a sustained and effective response to HIV/AIDS on the campus and in society in general. By placing the epidemic in a human rights context, and by challenging stigma, discrimination, racism and prejudices, the University hopes to enable staff and students to freely disclose their HIV status, should they wish to do so. Students receive training in all aspects of HIV/AIDS and are actively supported in their efforts to counter HIV/AIDS-related stigma and discrimination in their communities.

National human rights institutions in Ghana, India and South Africa have launched activities that promote and protect HIV/AIDS-related human rights in their countries. Legislators are also advancing HIV/AIDS-related human rights. The United Kingdom Westminster All-Party Parliamentary Group on HIV/AIDS, for example, held public hearings in 2001 to identify legal and policy reforms to be introduced in the next five years. At a regional level, the Southern African Development Community (SADC) Parliamentary Forum has set up a Standing Committee on HIV/AIDS, which is developing strategic work plans to address HIV/AIDS-related issues.

independence. Among many such initiatives are those of ILO, which is strengthening microfinance and entrepreneurial skills among women in Malawi, Mozambique, the United Republic of Tanzania and Zimbabwe (and integrating AIDS education into the programme).

Evidence in relation to condom negotiation, voluntary counselling and testing, and the uptake of interventions to prevent HIV transmission from mother to child points in the same direction: women's empowerment and safety depend also on changes in the attitudes and deeds of men and boys. The 2000–2001 World AIDS Campaign was aimed at involving men (particularly young men) more fully in the fight against AIDS. The Campaign, with its slogans, 'Men Make a Difference' and 'I Care... Do You?' highlighted how harmful gender roles make men and women more vulnerable to HIV, and how men could make positive contributions to the fight against the epidemic.

Beyond stigma and discrimination

Widespread HIV/AIDS-related stigma and discrimination persist (see Figure 14), despite the fact that they increase people's vulnerability and, by isolating people and depriving them of care and support, worsen the impact of infection. Indeed, they impede every step in an effective response, from prevention, to treatment, care and support, and even extend into the next generation, placing an emotional burden on children who may also be trying to cope with the death of their parents, due to AIDS.

But stigma and discrimination do not arise in a vacuum. They emerge from, and reinforce, other stereotypes, prejudices and social inequalities, including those relating to gender, nationality, ethnicity and sexuality, as well as activities that are criminalized (such as sex work, drug use or male-male sex). Stigma, discrimination and human rights violations form a vicious circle, legitimizing and spurring each other.

With its focus on stigma and discrimination, the 2002–2003 World AIDS Campaign aims to spur action against stigma and discrimination, as part of worldwide efforts that include:

- encouraging leaders at all levels, and in all walks of life, to visibly challenge HIV-related discrimination, spearhead public action and act against the many other forms of discrimination that people face in relation to HIV/AIDS;

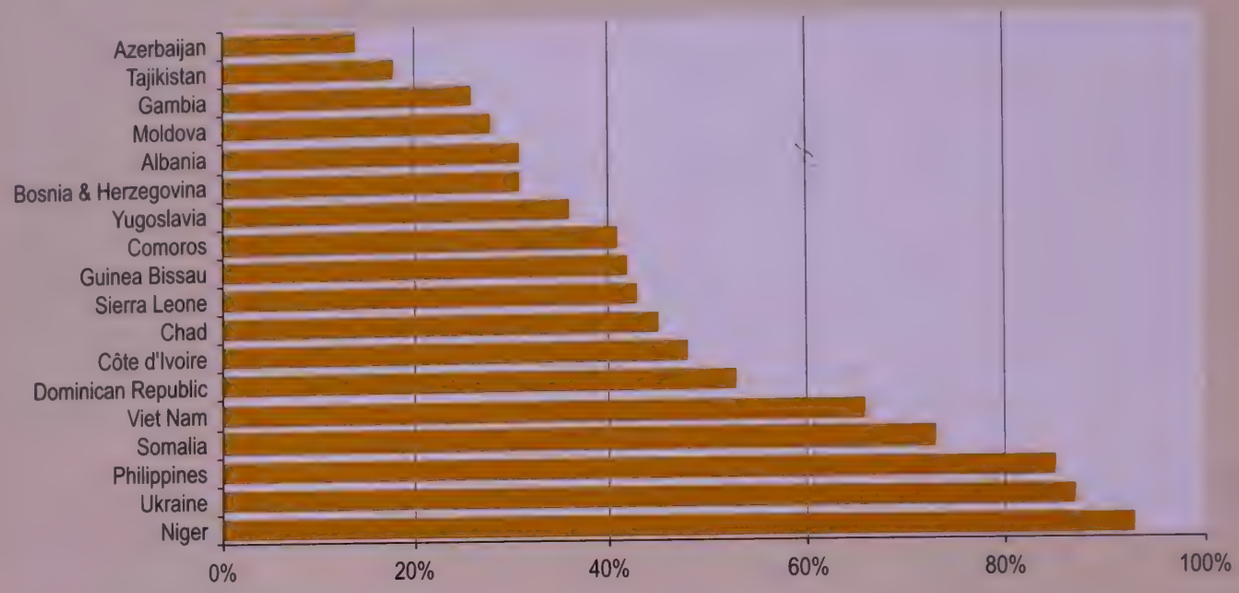
Declaration of Commitment

By 2005, ensure development and accelerated implementation of national strategies for women's empowerment, promotion and protection of women's full enjoyment of all human rights and reduction of their vulnerability to HIV/AIDS through the elimination of all forms of discrimination, as well as all forms of violence against women and girls (paragraph 61).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

Figure 14

Proportion of young women who have heard of AIDS and have at least one negative attitude towards people living with AIDS



Note: Respondents were asked two hypothetical questions about men and women with HIV: (1) Should a teacher who looks healthy but is HIV-positive be allowed to continue working; and (2) Would they buy something from a HIV-positive shopkeeper.

Source: UNICEF (1999-2001) Multi-Indicator Cluster Surveys

- actively involving people living with HIV/AIDS in the response to the epidemic;
- monitoring violations of human rights, and ensuring that people are able to challenge discrimination and receive redress through national administrative, judicial and human rights institutions designed to safeguard rights;
- creating an enabling legal environment for fighting discrimination; and
- ensuring that prevention and treatment, care and support services are accessible to all.

An effective, long-term response to the epidemic hinges on the recognition and protection of people's rights. Individuals and communities who are able to realize their rights to information, education, health and health care, and who are protected against discrimination and violence, are less vulnerable to the epidemic.

In 2000–2001, UNAIDS, in collaboration with the International Council of AIDS Service Organizations and its regional structures, concentrated on strengthening civil society capacity to realize and protect HIV/AIDS-related human rights. Working with the Asia Pacific Council of AIDS Service Organizations, UNAIDS developed a training module on human rights and HIV/AIDS for that region, and conducted training in Cambodia. The Latin American Council of AIDS Service Organizations, meanwhile, held a regional workshop to identify the human rights implications of National AIDS strategic plans in the region, and devised strategies to integrate human rights activities into those plans.

Crossing the line

Alongside the growing recognition of the importance to act against HIV/AIDS-related stigma and discrimination is mounting evidence that such challenges do yield success.

In South Africa, the AIDS Law Project at the University of Witwatersrand has steered HIV discrimination cases through the courts, winning precedent-setting judgements on unfair dismissal of HIV-positive persons, and on discrimination against HIV-positive persons in prisons. Members of Uganda's national network of traditional healers have been trained to become community AIDS educators. After years of concerted mobilization and consistent effort in Uganda, people with HIV are becoming more accepted as a normal part of society, and stigma and discrimination appear to be ebbing. In addition, more religious organizations are stepping into the breach, especially in Asia and Africa (see 'National responses' chapter).

And the African Council of AIDS Service Organizations is supporting community-based activities aimed at integrating human rights into prevention and care efforts in Burkina Faso and the United Republic of Tanzania.

Some of the most successful responses to the epidemic have occurred when people, ranging from gay communities in high-income countries, starting in the 1980s, to urban and rural communities in Uganda, and sex workers in Bangladesh and India, have seized the right to speak out, mobilize resources and organize.

In Bangladesh, sex workers have joined in a collective called Durjoy, which combats the trafficking of girls and young women in the sex industry. Along with nongovernmental organizations, Durjoy in 2001 won a court judgement that legally recognized the rights of sex workers to practise their trade and support their families. In Kolkata, India, meanwhile, sex workers have gone a step further and now build skills among local police to combat violence against them. In addition, they have created a board that brings together sex workers, local sex industry operators and government labour and health authorities to tackle violence in the industry.

The activism of civil society around rights issues remains one of the sterling features of effective responses everywhere, especially when it involves people living with and affected by HIV/AIDS, and young people.

In a range of African and Asian countries, the UNAIDS Secretariat (along with its Cosponsors, the Office of the High Commissioner for Human Rights, and other partners) is supporting training for national partners on HIV/AIDS-related human rights for community AIDS organizations, human rights nongovernmental organizations, political leaders, National AIDS Programme managers, people living with HIV/AIDS, and legislators.

Focus:
AIDS and young people

3

Declaration of Commitment

By 2003, establish time-bound national targets to achieve the internationally agreed global prevention goal to reduce by 2005 HIV prevalence among young men and women aged 15 to 24 in the most affected countries by 25% and by 25% globally by 2010 [...] (paragraph 47).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

Young people are particularly vulnerable to HIV infection, and frequently carry the burden of caring for family members living with HIV/AIDS. Many are vulnerable to HIV because of risky sexual behaviour or substance use, because they lack access to HIV information and prevention services, or for a host of social and economic reasons. Stigma can be particularly damaging to youngsters at a time when they are trying to consolidate their identity and establish their place in the world.

Yet, it is also young people who offer the greatest hope for changing the course of the HIV/AIDS epidemic, if they are given the tools and support to do so.

Young and vulnerable

An estimated 11.8 million young people aged 15–24 are living with HIV/AIDS. Moreover, about half of all new adult infections—around 6000 daily—are occurring among young people.

While it is difficult for many adults to admit it, large numbers of young people begin sexual activity at a relatively early age, are sexually active before marriage, are not monogamous, and do not use condoms regularly enough to ensure protection. In many countries, a significant proportion of young people start sexual activity before the age of 15, and many of them are already married (see Figure 15). In addition, experimentation with drug use, including injecting, is often a feature of youth. This underscores the capital importance of implementing prevention programmes long before sexual or drug-injecting activity might commence, because too many young people are unaware of the threat posed by HIV.

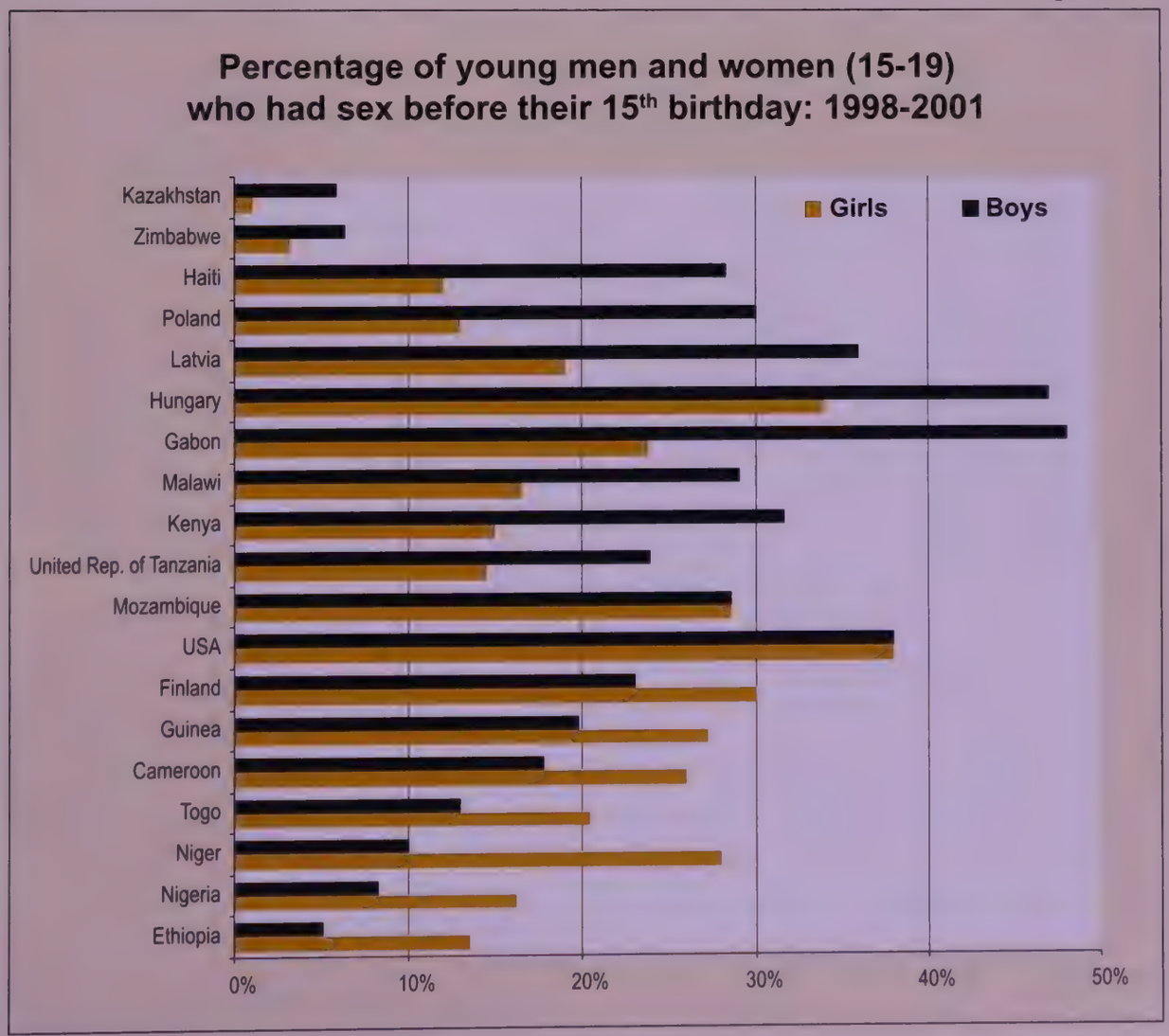
Marginalized young people (including street children, refugees and migrants) are at particular risk if they are excluded from health services, exposed to unprotected sex (sometimes in exchange for food, protection or money, or as a result of violence) or use illicit drugs. The estimated 1 million children who are forced into the sex trade every year are especially susceptible to contracting, and then spreading, HIV/AIDS.

In most societies, dominant ideologies promote sexual ignorance (disguised as 'innocence') among young women. At the same time, many girls and young women actually have little control over how, when and where sex takes place, as Figure 16, drawn from a South African national youth survey, shows.

What young people know... and don't know

Young people's vulnerability is compounded by their scant knowledge of how HIV is spread and how infection can be avoided. Many millions still have not heard of HIV or AIDS; many more harbour misconceptions about the disease. In addition, young women in many countries are far less knowledgeable about HIV than are young men. Half of

Figure 15



Sources: Measure Evaluation (1998-2001); UNICEF

Declaration of Commitment

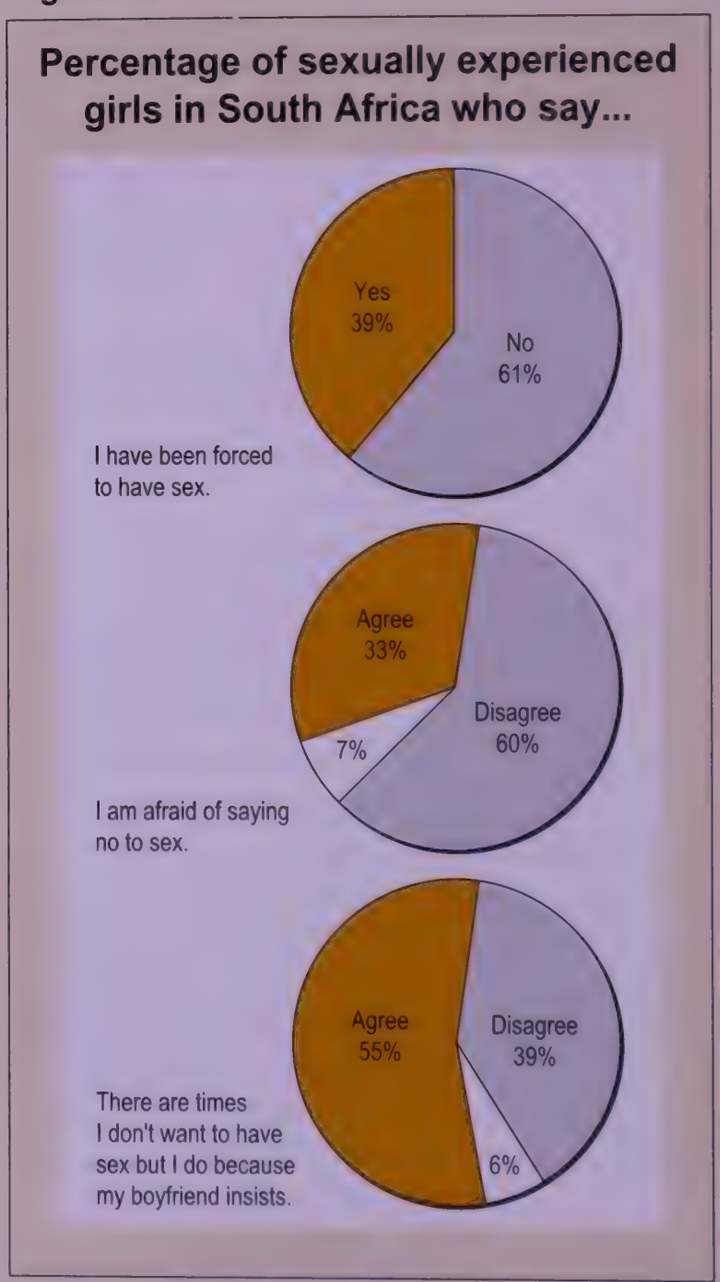
By 2005, ensure that at least 90%, and by 2010 at least 95% of young men and women aged 15 to 24 have access to the information, education, including peer education and youth-specific HIV education, and services necessary to develop the life skills required to reduce their vulnerability to HIV infection [...] (paragraph 53).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

the teenage girls in sub-Saharan Africa, for example, do not realize that a healthy-looking person can be HIV-positive.

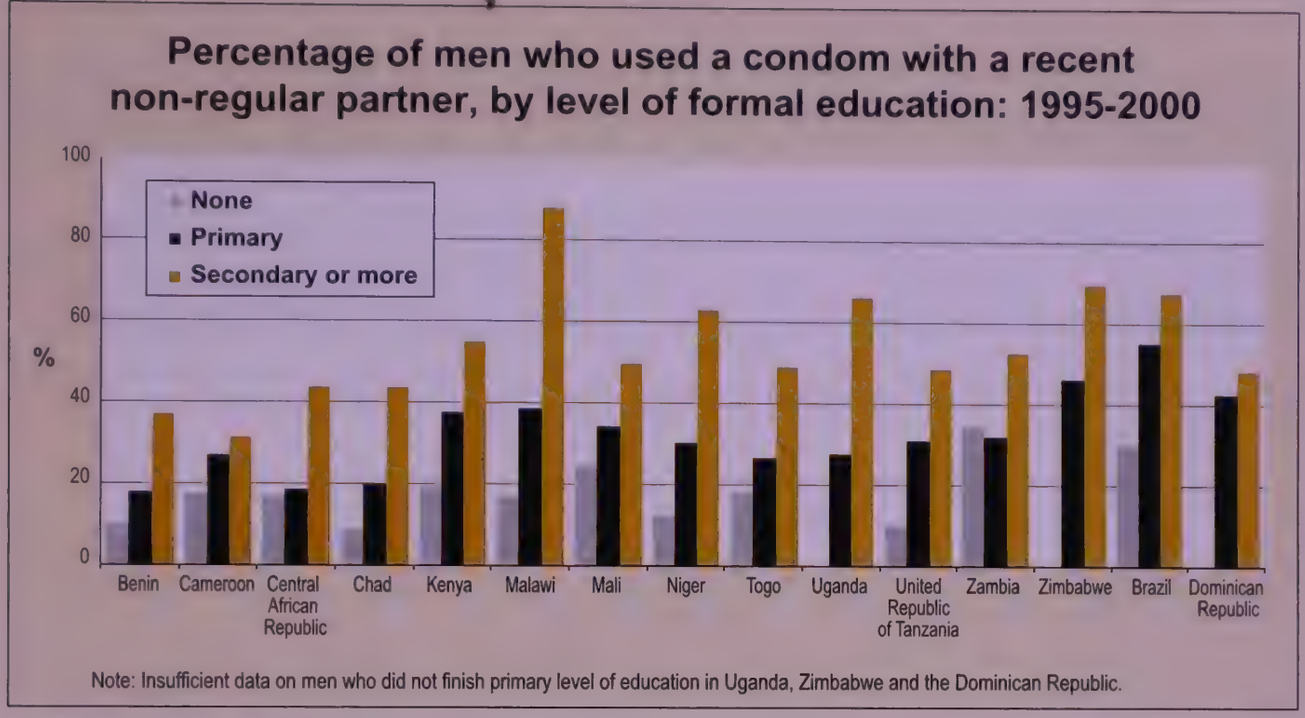
But even where knowledge has been substantially increased, 'knowing' is not necessarily 'doing'. Many young people do not connect knowledge and risk perception with behaviour. The vulnerable circumstances many young people experience might offer a partial explanation. Just as important is the need to understand what helps young people practise safe behaviour—the 'protective factors' that help adolescents form coping strategies, develop positive self-esteem and create a social support system that reduces high-risk behaviours. One study in rural Zimbabwe, for example, demonstrated that being a member of a well-run community youth group can reduce a young woman's chance of becoming infected with HIV. A 2001 study among South African students suggested that condom use is significantly greater among adolescents who feel they can discuss sex with their parents, or adolescents who live in communities with good infrastructure. In contrast, young people living in households that recently experienced disruptive household events (illness, job loss or divorce) were less likely to use condoms. Research also confirms that higher education levels are associated with higher rates of condom use, as Figure 17 illustrates.

Figure 16



Source: Kaiser Family Foundation/KLA (2000) South African National Youth Survey

Figure 17



Note: Insufficient data on men who did not finish primary level of education in Uganda, Zimbabwe and the Dominican Republic.

Source: Macro International (1995-2000) Demographic and Health Surveys; UNICEF

Protecting young people from HIV

The future course of the epidemic depends on the efforts mounted today to prevent HIV infection among young people. Taking as an overall principle the conviction that young people are themselves a force for change, several basic strategies are essential to helping young people protect themselves. These include:

- protecting and promoting the rights of the child, including the rights to information, education, health and health care, freedom from rape and sexual coercion and cruel and inhuman treatment, and the right of girls to equality in education, employment, inheritance, marital law, and sexual and reproductive decision-making;
- providing HIV/STI prevention, sexual and reproductive health and life-skills education and information to young people, whether they are in school or not;
- providing reproductive health services, including low-cost or free condoms, voluntary counselling and testing, and diagnosis and treatment of sexually transmitted infections;
- targeting programming to particularly vulnerable groups such as young injecting drug users and young men who have sex with men; and
- combating sexual exploitation of young people.

These strategies are most effective when they take into account the role of gender inequalities in the epidemic, and when they help empower girls and young women against a wide variety of cultural and social inequities that make them more vulnerable than males.

Comprehensive curricula, properly taught

Despite the obvious threat to young people's health and lives, HIV/AIDS is still too frequently regarded as an 'unsuitable' issue for them. But prevention programmes for young people in school are an essential component of any national HIV prevention effort. Several important lessons have been learned about how to do this effectively. Programming should be sustained, starting before puberty and continuing throughout a young person's school years. Many authorities resist the idea that such education should begin before young people become sexually active. But the timing of people's sexual debuts varies widely, and the importance of good health habits, including those regarding sexual health and HIV/AIDS and other sexually transmitted infections, must be driven home at an early age. Preventive health education should be comprehensive, providing an age-appropriate balance of life-skills development, reproductive and sexual health information, and discussion of attitudes and values.

The more information provided, the better, according to a recent study that compared teenage sexual and reproductive behaviour in high-income countries. Relatively low rates of teenage pregnancy and sexually transmitted infections in countries such as Canada, France and Sweden seemed to reflect the success of comprehensive curricula, applied on a national scale, covering a wide range of topics and presenting options for safe sexual behaviour. Less successful outcomes were reported in school systems where abstinence was presented as the only appropriate option for teenagers outside of marriage, and where contraception was incorrectly presented as ineffective in preventing pregnancy, HIV and other sexually transmitted infections.

Other common features characterize successful programmes. Among them is the *consistency of messages*: successful curricula provide and reinforce clear messages about the risks of teenage sexual activity, and how to either avoid intercourse or guard against pregnancy and sexually transmitted infections. Adequately trained teachers who support the programmes increase the potency of such programmes. These programmes also need to take account of traditional beliefs and value systems, as well as the popular mythologies that circulate among young people and their wider communities.

Nigeria recently embraced a comprehensive approach to school-based prevention. It has announced the implementation of a National Sexuality Education Curriculum, which will begin in upper primary grades and carry on through secondary school. Work began on the curriculum in 1998, when widely reported research revealed unexpectedly high levels of HIV and AIDS among the 15–24-year-old age group, which constitutes a large part of the country's population. A great deal of consultation was conducted so as to take into account both international best practices and the particular cultural and religious conditions in the country.

The curriculum is organized around six themes: human development, personal skills, sexual health, relationships, sexual behaviour, and society and culture. Among its various features, the curriculum has a strong life-skills component, emphasizing such skills as decision-making, negotiation and assertiveness. By the senior years of secondary school, all students will have received clear and consis-

Corrigendum

Due to a technical error, some of the figures in Table 1 on pages 14–15 are inaccurate and have been corrected in the table below.

Table 1

Measuring progress towards the targets established at the United Nations General Assembly Special Session on HIV/AIDS in June 2001: baseline measurements of HIV prevalence, prevention and impact indicators in countries with high HIV prevalence*

	HIV prevalence amoung pregnant women (aged 15-24)						Prevention				
	Major urban areas			Outside major urban areas			Knowledge/awareness among young people				
Country	Year *b*	Pregnant women (15-19) Median *c*	Pregnant women (20-24) Median *d*	Year *e*	Pregnant women (15-19) Median *f*	Pregnant women (20-24) Median *g*	Heard of AIDS Female (15-24) *h*	Condom use Female (15-24) *i*	One faithful partner Female (15-24) *j*	Aware that 'healthy-looking' person can be infected Female (15-24) *k*	Has no major misconceptions Female (15-24) *l*
Angola		...	...		...	...	70	30	30	43	17
Botswana	2001 [3]	27.1	34.9	2001 [19]	26.6	46.9	95	76	74	79	35
Burkina Faso	1998 [1]	6.2	8.8		...	...	84	...	...	42	...
Burundi	1998 [1]	8.8	15.4	1998 [1]	24	14.3	85	47	71	66	36
Cameroon	2000 [5]	9.5	11.2	2000 [22]	9.3	14.1	90	46	51	54	23
Central African Rep.		...	...		...	...	...	...	...	46	...
Congo	2000 [u]	11	...		...	...	...	...	...	...	...
Côte d'Ivoire	1998 [3]	4.7	12.2	1997 [9]	7.5	12.1	93	53	55	51	21
Ethiopia	2000 [4]	8.9	17.6	2000 [3]	0	4.3	82	37	62	39	...
Haiti	2000 [n]	3.7	3.8	2000 [n]	3.7	3.8	97	52	56	68	...
Kenya	1997 [1]	12.5	16.2		...	...	90	53	75	65	59
Lesotho	1999 [n]	~ 25	~ 41	1999 [n]	~ 25	~ 41	81	58	50	46	22
Liberia		...	...		...	...	63 *y*	49 *a*	44 *a*	31 *a*	...
Malawi	2001 [3]	13.6	25.7	2001 [16]	10.2	20.3	99	78	80	84	...
Mozambique	2000 [2]	13	14.7	2000 [18]	6.3	13.7	83	...	...	38	...
Namibia	2000 [n]	11.9	20.3	2000 [n]	11.9	20.3	98	87	77	...	...
Nigeria	2000 [n]	3	5.8	2000 [n]	3	5.8	75	15	44	45	...
Rwanda	1999 [4]	8.4	12.8	1999 [6]	4.2	7.6	99	68	75	23	...
Sierra Leone		...	...		...	...	59	30	32	35	21
South Africa	2000 [n]	16.1	29.1	2000 [n]	16.1	29.1	95 *y*	...	...	< 50 *y*	...
Swaziland	2000 [u]	22	42.2	2000 [3]	30.1	42.5	97	63	61	81	43
United Rep. of Tanzania	2000 [3]	13.2 *z*		2000 [9]	16.3 *z*		96	62	64	65	35
Togo		...	...		...	...	96	63	74	67	27
Zambia	1998 [4]	16.7	26.8	1998 [18]	6	17.5	96	59	78	75	40
Zimbabwe	2000 [u]	27.1	34.8	2000 [r]	28.4	35.3	96	73	73	74	...

* See Annex 2 for key to letters and numbers used after figures.

Measuring progress towards the targets established at the United Nations General Assembly Special Session on HIV/AIDS in June 2001: baseline measurements of HIV prevalence, prevention and impact indicators in countries with high HIV prevalence*

	Prevention								Impact	
	High-risk sex in past year		Reported condom use at last high-risk sex		Prevention of mother-to-child transmission				Orphans	
Country	Male (15-59) *m*	Female (15-49) *n*	Male (15-59) *o*	Female (15-49) *p*	Knowledge of MTCT Female *q*	Know a place to get tested *Female r*	Number of pregnant women HIV+ *s*	Antenatal care coverage (15-49) *t*	Children orphaned by AIDS (0-14) *u*	Orphans in School *v* Orphan attendance rate as a % of non-orphan attendance rate
Angola	...	...	...	...	48	23	40,000	...	104,000	89
Botswana	...	...	...	...	81	47	22,000	97	69,000	99
Burkina Faso	28	8	59	42	45	...	47,000	61	268,000	...
Burundi	...	...	...	...	81	27	40,000	76	237,000	69
Cameroon	55	28	5	3	63	58	74,000	75	210,000	92
Central African Rep.	...	...	...	...	45	26	20,000	62	107,000	89
Congo	70	43	...	12	...	...	11,000	...	78,000	...
Côte d'Ivoire	87	30	12	1	65	19	60,000	88	420,000	77
Ethiopia	21	8	30	13	57	...	220,000	27	989,000	60
Haiti	55	32	26	14	72	22	...	80	43,000	82
Kenya	45	20	42	16	85	...	180,000	76	892,000	75
Lesotho	...	...	...	...	62	...	25,000	88	73,000	89
Liberia	...	...	...	...	...	...	12,000	85	39,000	...
Malawi	37	9	39	29	77	70	100,000	92	468,000	92
Mozambique	59	...	...	4	...	...	130,000	71	418,000	46
Namibia	...	...	...	...	...	79	17,000	91	47,000	...
Nigeria	...	...	...	...	40	...	270,000	64	995,000	...
Rwanda	12	7	50	15	88	45	47,000	92	264,000	93
Sierra Leone	...	...	...	...	37	9	18,000	68	42,000	74
South Africa	...	...	...	...	...	...	260,000	94	662,000	...
Swaziland	...	...	...	...	72	60	13,000	87	35,000	86
United Rep. of Tanzania	52	29	34	23	74	52	120,000	49	815,000	72
Togo	35	16	37	17	73	...	13,000	82	63,000	92
Zambia	43	29	30	18	88	59	110,000	83	572,000	88
Zimbabwe	43	16	70	42	84	43	170,000	93	782,000	85

Corrigendum

Due to a technical error, some of the figures in Table 1 on pages 14–15 are inaccurate and have been corrected in the table below.

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Angola		...	...		...	...	70	30	30	43	17
Botswana	2001 [3]	27.1	34.9	2001 [19]	26.6	46.9	95	76	74	79	35
Burkina Faso	1998 [1]	6.2	8.8		...	...	84	...	...	42	...
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Cameroon	2000 [5]	9.5	11.2	2000 [22]	9.3	14.1	90	46	51	54	23
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Congo	2000 [u]	11	...		...	...	...	...	...	...	...
Côte d'Ivoire	1998 [3]	4.7	12.2	1997 [9]	7.5	12.1	93	53	55	51	21
Ethiopia	2000 [4]	8.9	17.6	2000 [3]	0	4.3	82	37	62	39	...
Haiti	2000 [n]	3.7	3.8	2000 [n]	3.7	3.8	97	52	56	68	...
Kenya	1997 [1]	12.5	16.2		...	...	90	53	75	65	59
Lesotho	1999 [n]	~ 25	~ 41	1999 [n]	~ 25	~ 41	81	58	50	46	22
Liberia		...	...		...	...	63 *y*	49 *a*	44 *a*	31 *a*	...
Malawi	2001 [3]	13.6	25.7	2001 [16]	10.2	20.3	99	78	80	84	...
Mozambique	2000 [2]	13	14.7	2000 [18]	6.3	13.7	83	...	...	38	...
Namibia	2000 [n]	11.9	20.3	2000 [n]	11.9	20.3	98	87	77	...	...
Nigeria	2000 [n]	3	5.8	2000 [n]	3	5.8	75	15	44	45	...
Rwanda	1999 [4]	8.4	12.8	1999 [6]	4.2	7.6	99	68	75	23	...
Sierra Leone		...	...		...	...	59	30	32	35	21
South Africa	2000 [n]	16.1	29.1	2000 [n]	16.1	29.1	95 *y*	...	...	< 50 *y*	...
Swaziland	2000 [u]	22	42.2	2000 [3]	30.1	42.5	97	63	61	81	43
United Rep. of Tanzania	2000 [3]	13.2 *z*		2000 [9]	16.3 *z*		96	62	64	65	35
Togo		...	...		...	...	96	63	74	67	27
Zambia	1998 [4]	16.7	26.8	1998 [18]	6	17.5	96	59	78	75	40
Zimbabwe	2000 [u]	27.1	34.8	2000 [r]	28.4	35.3	96	73	73	74	...

* See Annex 2 for key to letters and numbers used after figures.

Measuring progress towards the targets established at the United Nations General Assembly Special Session on HIV/AIDS in June 2001: baseline measurements of HIV prevalence, prevention and impact indicators in countries with high HIV prevalence*

	Prevention								Impact	
	High-risk sex in past year		Reported condom use at last high-risk sex		Prevention of mother-to-child transmission				Orphans	
Country	Male (15-59) *m*	Female (15-49) *n*	Male (15-59) *o*	Female (15-49) *p*	Knowledge of MTCT Female *q*	Know a place to get tested *Female r*	Number of pregnant women HIV+ *s*	Antenatal care coverage (15-49) *t*	Children orphaned by AIDS (0-14) *u*	Orphans in School *v* Orphan attendance rate as a % of non-orphan attendance rate
Angola	...	...	...	...	48	23	40,000	...	104,000	89
Botswana	...	...	...	...	81	47	22,000	97	69,000	99
Burkina Faso	28	8	59	42	45	...	47,000	61	268,000	...
Burundi	...	...	...	...	81	27	40,000	76	237,000	69
Cameroon	55	28	5	3	63	58	74,000	75	210,000	92
Central African Rep.	...	...	...	...	45	26	20,000	62	107,000	89
Congo	70	43	...	12	...	...	11,000	...	78,000	...
Côte d'Ivoire	87	30	12	1	65	19	60,000	88	420,000	77
Ethiopia	21	8	30	13	57	...	220,000	27	989,000	60
Haiti	55	32	26	14	72	22	...	80	43,000	82
Kenya	45	20	42	16	85	...	180,000	76	892,000	75
Lesotho	...	...	...	...	62	...	25,000	88	73,000	89
Liberia	...	...	...	...	...	...	12,000	85	39,000	...
Malawi	37	9	39	29	77	70	100,000	92	468,000	92
Mozambique	59	...	...	4	...	...	130,000	71	418,000	46
Namibia	...	...	...	...	...	79	17,000	91	47,000	...
Nigeria	...	...	...	...	40	...	270,000	64	995,000	...
Rwanda	12	7	50	15	88	45	47,000	92	264,000	93
Sierra Leone	...	...	...	...	37	9	18,000	68	42,000	74
South Africa	...	...	...	...	...	...	260,000	94	662,000	...
Swaziland	...	...	...	...	72	60	13,000	87	35,000	86
United Rep. of Tanzania	52	29	34	23	74	52	120,000	49	815,000	72
Togo	35	16	37	17	73	...	13,000	82	63,000	92
Zambia	43	29	30	18	88	59	110,000	83	572,000	88
Zimbabwe	43	16	70	42	84	43	170,000	93	782,000	85

tent information about practical issues, such as contraception, family planning, and sexually transmitted infections. And they will also have learned about the responsibilities of family members and the rights of the child.

Access to youth-friendly services

The value of promoting safer sex through education and communication campaigns risks being lost if young people do not have access to further information, advice and reproductive health services, and to treatment for sexually transmitted infections. In many high-prevalence countries, such services are scarce and, even if they exist, young people do not know about them. In a recent study of voluntary counselling and testing services in Kenya, for example, only 11% of untested youth in Nairobi could name a service provider within their communities, though more knew that testing (though not necessarily counselling) was available at a large hospital. Other barriers include young people's perception of low risk, their concerns about lack of confidentiality, and unresolved issues about parental consent.

Current best practice in youth-friendly health services shows they should be affordable, cater to minors or unmarried adults, and offer low-cost or free condoms in an atmosphere that guarantees confidentiality. And, in many settings, flexible opening hours for young people who work or study will make a big difference to the number of people who use such services.

Russia's 'Juventa' medical centre in St Petersburg is a good example of youth-friendly programming. It provides a range of services including HIV counselling and testing, contraception and abortion, treatment of sexually transmitted infections, sexual abuse counselling, and legal assistance. Consultation and other services are free to people under 18, who make up 90% of those visiting the centre. Regular surveys are made of young people's satisfaction with

Beyond curriculum: creating 'healthy schools'

The FRESH Partnership (Focusing Resources on Effective School Health) was created to change the way the global community and national governments deal with health and its effects on education. Developed by UNAIDS Cosponsors (UNICEF, UNESCO, WHO and the World Bank) and launched at the Dakar World Education Forum in 2000, FRESH aims to help school systems in low- and middle-income countries overcome health problems that interfere with teaching and learning.

The FRESH approach revolves around core activities that include skills-based education, proposals for school policies that protect students and staff from HIV/AIDS-related discrimination, and the linking of students to health services such as testing and treatment for HIV and other sexually transmitted infections, and access to condoms. These activities are supported by strong school/community partnerships.

FRESH programmes (or ones that incorporate its approach) are being developed in more than 30 countries in Africa, Asia, the Caribbean and Central Asia. In Eritrea, for example, the national Department of Education has selected 20 primary and secondary schools for enhanced school health activities, notably for the prevention of HIV/AIDS and related discrimination. A total of 200 teachers will also receive comprehensive school-health training.

the services, and changes are made accordingly. Similar approaches, but in a very different setting, are carried out at the Youth Health Centre in the Seychelles. Established with the help of the United Nations Population Fund, the Centre has been able to involve young people in most areas of programming, including an extensive peer educator programme.

Reaching out through peers

Peer education has been adopted by many prevention programmes, both for young people and for other groups, and is regarded as a key strategy for reaching young people who are not in school, as well as those who are.

Properly designed and implemented peer education projects can change behaviour. For example, the *Entre Nous Jeunes* project in Nkongsamba, Cameroon, runs a peer-educator programme to promote preventive behaviours regarding sexually transmitted infections and HIV, particularly among young people who are sexually experienced and in need of reproductive health information. A recent study of the project found that contact with a peer-educator was significantly associated with stronger knowledge about contraception and the symptoms of sexually transmitted infections, and greater use of contraceptives, including condoms. Without the peer-education programme, the level of contraceptive use in the community would have been significantly lower.

Peer education programmes for young people must pay close attention to how they present gender issues. A recent study of one school-based peer education project in South Africa noted that, instead of making young people aware of how traditional gender roles put young people at risk of HIV infection, peer group meetings actually reproduced those same gender roles. Young men often dominated the meetings, while young women were reluctant to assert themselves. The research underlined the importance of properly training peer educators and also of creating settings in which young people of both sexes can talk openly about sexuality and relationships.

Special needs and special programming

More targeted HIV prevention programmes are needed for specific groups of young people. For example, young men who have sex with men, or who are unsure about their sexuality, may be reluctant to access services geared towards the heterosexual majority (this is particularly true when a young man has been raped or is the victim of incest). Switzerland's Project MSM, implemented by the country's nongovernmental AIDS Federation, reaches out to young men in a number of ways, from youth clubs to the Internet. Its underlying principle is that helping young men accept their sexual preference is a precondition to making them fully aware of the risks of HIV.

In many countries, the majority of sex workers and injecting drug users are young people. And in all countries, the majority of sex workers and injecting drug users start these activities when they are young. With more and more young people turning to injecting drug use in many countries, there is a growing need for preventive programmes specifically adapted for young injecting drug users. These include substance use and drug rehabilitation services, as well as needle-exchange programmes and education on HIV prevention. The same is true for young sex workers. Given the hazards they face, they need more information, regular health check-ups, and easier access

South Africa's 'loveLife': young people's HIV prevention on a national scale

South Africa's 'loveLife' programme began in 1999 with an impressive array of activities, including a national television, radio and print media campaign, youth centres, free clinical health services, and a network of support services. The programme combines well-known public health practice with innovative marketing techniques to promote sexual responsibility and healthy living among young people. LoveLife has had noticeable impact, and currently reaches an estimated 4 million young people each year. Research indicates that, of the 62% of young South Africans who report having heard of the programme, 76% say they are aware of the risks of unprotected sex, and 78% report that they now use condoms during sex. Some 67% say they have had open conversations with friends about sexuality and relationships, while 69% report having limited or reduced their number of sexual partners. The programme was initiated by the Kaiser Family Foundation in partnership with South African nongovernmental organizations, with funding from the South African Government, the Bill and Melinda Gates Foundation, UNICEF and other organizations.

to condoms. Just as importantly, they need support and protection to use these services. Specially-designed programmes can be useful in reaching young people who are already in the workforce (see 'Focus: AIDS and the world of work').

Young people who have had trouble with the law and are living in detention centres or jails are especially vulnerable. Recently, UNFPA worked with Thai health authorities and nongovernmental organizations to bring HIV/AIDS education to juvenile delinquents living in a detention centre in Rayong Province. The project took the innovative approach of involving family relations of the detained young people, and study tours outside the centres.

Combating the sexual exploitation of young people and children

One of the most pressing challenges is to halt the widespread sexual exploitation of young people and children, especially young girls. This priority received powerful support in December 2001 at the 2nd World Congress against Commercial Sexual Exploitation of Children in Yokohama, Japan. The Congress presented a wealth of evidence of the dangers to which children are subjected, and underlined the connection to HIV/AIDS. The meeting's final declaration—the Yokohama Global Commitment—provided a broad framework for fighting this exploitation.

Children trapped in prostitution are at higher risk of infection, being both less able to resist sexual dominance and more vulnerable to the injuries of aggression. Children's subservient role in commercial sex means that they are often obliged to take multiple clients each day.

Solutions must necessarily be multisectoral, with law-makers and law-enforcement organizations playing a large part. Efforts to change cultural attitudes through mass media campaigns also have an undoubted role. But other parts of society can make important contributions too.

Universal education is a powerful tool against sexual exploitation of young people and children, especially girls. In 1992, Thailand launched a national effort to eradicate child prostitution and to help those at risk of entering the sex industry. (Many girls are sold or coerced into sex work, often by their families, for economic reasons.) A key strategy was to ensure that all children (both sexes equally) should receive nine years of basic education, and to provide impoverished children with access to education and vocational training.

Prevention: applying the lessons learned

4

Prevention: applying the lessons learned

Investment in HIV prevention averts untold human suffering, together with its social and developmental consequences, regardless of a country's HIV prevalence rates. Further rises in HIV incidence will only be slowed by a massive expansion of prevention efforts. Programmes for young people are vital and must continue as each new generation approaches sexual maturity.

Prevention has maximum impact as part of comprehensive interventions, spearheaded by governments that break the silence around HIV/AIDS and deploy sufficient human and financial resources. Their impact is amplified by wider public health and development strategies addressing the underlying socio-economic causes that leave people vulnerable to infection, as well as vulnerabilities arising from gender inequities, the denial of human rights and discrimination against marginalized groups. Prevention efforts must be buttressed by well-supported community responses that include people living with HIV/AIDS, religious groups, and traditional and trusted leaders. And, in the context of more effective HIV treatment and the drop in antiretroviral drug prices, prevention must be linked to the provision of care and support.

As the epidemic is constantly shifting, prevention efforts must be tailored to developments in the epidemic, on the research front, and to evaluations that confirm success or failure. Like society itself, the epidemic is in constant flux as it adapts to surrounding factors and circumstances.

Declaration of Commitment

By 2005, ensure: that a wide range of prevention programmes [...] is available in all countries, particularly the most affected countries, including information, education and communication [...] aimed at reducing risk-taking behaviour and encouraging responsible sexual behaviour [...] expanded access to essential commodities [...] harm-reduction efforts related to drug use; expanded access to voluntary and confidential counselling and testing; safe blood supplies; and early and effective treatment of sexually transmittable infections (paragraph 52).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

Declaration of Commitment

By 2003, develop and/or strengthen national strategies, policies and programmes, supported by regional and international initiatives [...] to promote and protect the health of those identifiable groups which currently have high or increasing rates of HIV infection or which public health information indicates are at greatest risk of, and most vulnerable to new infection [...] (paragraph 64).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

Prevention essentials

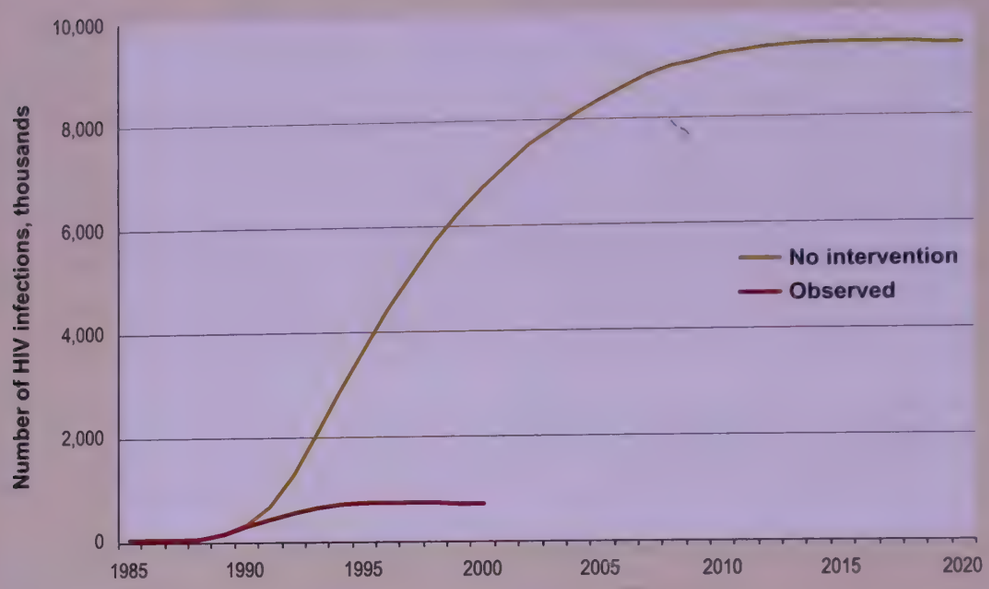
The success stories of Cambodia, Senegal, Thailand, Uganda and urban Zambia, as well as those of a number of high-income countries, show that comprehensive prevention approaches are effective. These experiences provide clear evidence of what works:

- *Knowledge is not enough.* Behavioural change requires locally-appropriate, targeted information, training in negotiating and decision-making skills, social and legal support for safer behaviours, access to the means of prevention (e.g., condoms or clean needles) and motivation to change behaviour.
- *The distribution of risk and vulnerability in societies varies greatly, as does the ability to locate and work with specific vulnerable populations.* No single prevention approach can be effective everywhere. To effectively produce and sustain behavioural change on a national scale, focused prevention programmes will involve multiple components, developed with the close input of each targeted population, to address the specific needs of vulnerable groups and the many factors influencing behavioural change.
- *General population efforts are important, especially for the young.* Effective national programmes take into account the need to raise the awareness, knowledge, and HIV prevention and care skills among the rest of the population, especially the young, among whom almost half of all HIV transmission occurs.
- *Partnerships are essential for effective prevention.* Because multiple programmes in multiple populations are needed, it is crucial to create partnerships between different players, including people with HIV/AIDS.
- *Political leadership is essential to an effective response.* Political leadership and action are clearly needed to set the direction for a national response and initiate the development of policies that determine the strategy for managing the epidemic.
- *Half-measures bring, at best, partial results.* Interventions that do not achieve sufficient coverage will simply fail to have a significant impact.

Prevention depends on an environment of openness and inclusion that enables all people,

Figure 18

Scenario of the epidemic in Thailand, had there been no intervention through 2020, and observed epidemic curve



Source: Division of AIDS, Ministry of Public Health in Thailand; Thai Working Group on HIV/AIDS Projection (2001) *HIV/AIDS Projections for Thailand: 2000-2020.*

People living with HIV/AIDS: essential for effective prevention

More and more, people living with HIV/AIDS are being seen as leaders in prevention and care. The GIPA principle (Greater Involvement of People living with HIV/AIDS), as set out in the 1994 Paris Declaration, recognizes that people who live with the disease add immeasurable value and impetus to the response. They help personalize the epidemic and bring home to the wider public, political and civil society institutions and policy-makers the realization that HIV is everyone's problem. The difference they have made has led to their inclusion on the National AIDS Councils of a number of countries (see 'National responses' chapter).

GIPA is at work in Burundi's National Association of People Living with AIDS, which has been active since 1993 in giving AIDS a public face in the country. The association runs prevention campaigns, promotes voluntary counselling and testing, and offers medical care and psychosocial support.

In northern Thailand, groups of people living with HIV/AIDS are providing care and support for HIV-positive individuals. They lobby politicians to step up their involvement, counsel people on their legal rights, and campaign for better social services.

In South Africa, GIPA field workers have been trained and recruited by companies such as Eskom, Imperial Transport Holdings, Lonmin Mines and a well-known newspaper, *The Sowetan*. Their presence in the workplace has added credibility to HIV/AIDS programmes and, by speaking out openly, they have made a dent in stigma, while increasing public awareness.

including those living on the margins of society, to undergo voluntary testing, seek and receive treatment, alter their own behaviour, and become allies in the fight against HIV/AIDS. Successful responses challenge stigma and discrimination, protect the rights of those infected and affected by HIV, and include marginalized groups as active participants rather than mere 'beneficiaries' of services.

Integrating care and support with prevention efforts

Care and prevention are integrally related. Prevention efforts have always been hard to implement when access to treatment, care and support is limited. Without the hope of treatment, care and support, and fearing stigma and discrimination, people see little reason to learn about, or disclose, their HIV status.

Prevention is enhanced when it is linked to care and support. People are encouraged to come forward and get tested for HIV if they know treatment will be available. For those who test HIV-positive, treatment, care and support not only improve their quality of life, they also decrease the spread of infectious diseases (particularly tuberculosis and sexually transmitted infections) through early diagnosis and treatment. Voluntary counselling and testing services are an entry point for behavioural change; they offer an opportunity for people worried about their serostatus to talk with medical and other trained staff, and discuss how they might prevent further spread of the infection. Open and compassionate care for HIV-infected people helps counter wider societal fears about HIV/AIDS.

Ironically, in some high-income countries where access to treatment and care is widespread, prevention has increasingly become divorced from care. The result has been upturns in risky behaviour and, in some instances, increases in the number of new HIV infections. In such situations, treatment and care efforts must be accompanied by increased and integrated prevention efforts.

Strategic prevention

The global HIV/AIDS epidemic is made up of many different epidemics that are evolving in tandem, often within the same country.

Effective HIV prevention combines society-wide strategies with particular focus on those parts of the population most at risk.

Whatever the extent of the spread of the epidemic, young people need to be at the centre of all HIV strategies—not least because most HIV infections occur during, or soon after, adolescence. Strategies that work combine:

- AIDS life-skills education;
- mass media communication;
- access to condoms;
- voluntary counselling, testing and referral;
- treatment of sexually transmitted infections;
- involvement of parents and other adults; and
- efforts to improve young people's social and economic status.

In low-prevalence settings, a concentrated epidemic tends initially to be associated with certain high-risk contexts—typically, sex work, injecting drug users and sex between men. Usually, these activities are also highly stigmatized. But the people at risk in these contexts are not isolated groups; they mix across populations, as confirmed by behavioural surveillance. However, early, large-scale interventions among these groups could stave off a potential epidemic.

In high-prevalence settings, the epidemic is spread much more broadly throughout the general population. The higher the national HIV prevalence rate, the higher the proportion of people who must adopt safer behaviour if the epidemic is to be brought under control. Very high coverage with demonstrably effective interventions then becomes crucial.

Whether in low- or high-prevalence areas, the key to effective prevention is to apply essential prevention strategies to the realities of the epidemic, at the local, national or even regional levels.

The illusions of low national HIV prevalence

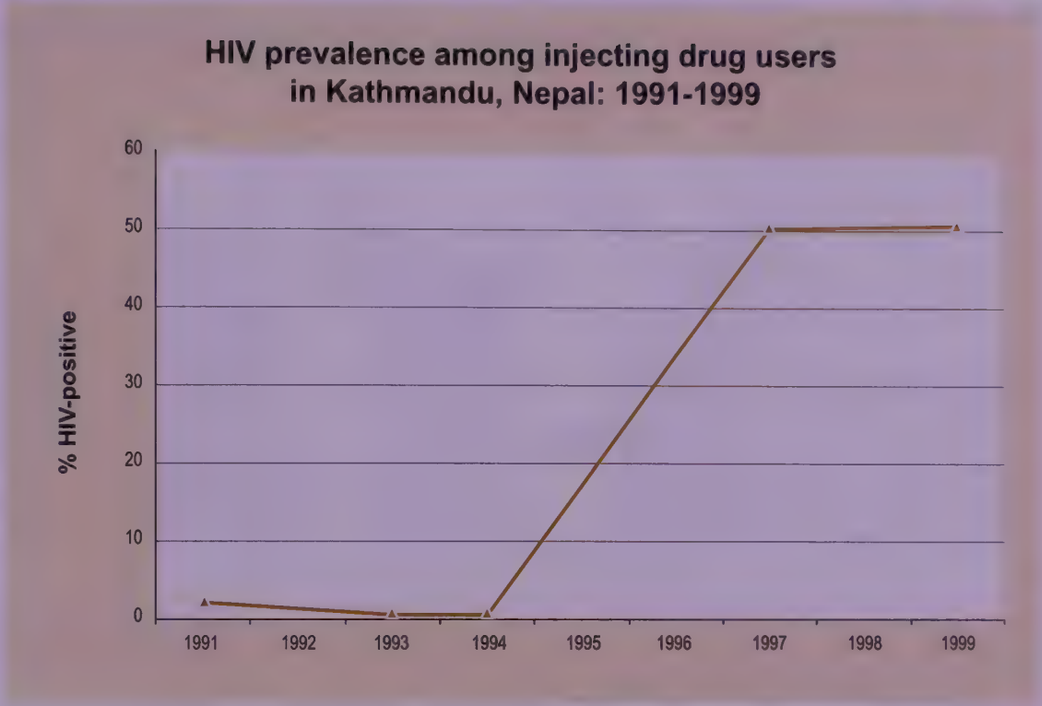
Twenty years into the HIV/AIDS epidemic, the majority of countries in the world still register national HIV prevalence rates of less than 1%, for the global epidemic is still in its early stages. But two decades ago, there was no country in the world that had nationwide adult HIV prevalence rates above 1%; today there are nearly 50 and, in 12 of them, national adult HIV prevalence is estimated to be more than 10%.

Countering harmful gender norms

Programmes should seek to counter harmful gender norms that lead to the sexual coercion and exploitation of women and girls (see 'Focus: AIDS and human rights'). Through the use of media, public information campaigns, the arts, schools and community discussion groups, such programmes should:

- encourage discussion of the ways in which boys and girls are brought up and expected to behave;
- challenge concepts of masculinity and femininity, based on inequality and aggressive and passive stereotypes;
- encourage men and boys to talk about sex, violence, drug use and AIDS with each other and their partners;
- teach female assertiveness and negotiation skills in relationships, sex and reproduction;
- teach and encourage male sexual and reproductive responsibility;
- teach and promote respect for, and responsibility towards, women and children;
- teach and promote equality in relationships and in the domestic and public spheres;
- support actions to reduce male violence, including domestic and sexual violence;
- encourage men to be providers of care and support in the family and community; and
- encourage understanding and acceptance of men who have sex with men.

Figure 19



Source: Peak A et al. (1995); *AIDS*. Gurubacharya RL et al. (1998); 12th World AIDS Conference, Abstract 23246. Oelrichs RB et al. (2000) *J. Virol.*

HIV rates, reported as a national average, can be misleading. In populous countries, national adult HIV prevalence of, say, 2–3% may nevertheless mean millions of infections. National HIV prevalence rates can also mask the concentrated nature of HIV epidemics in specific parts of the country and among specific populations.

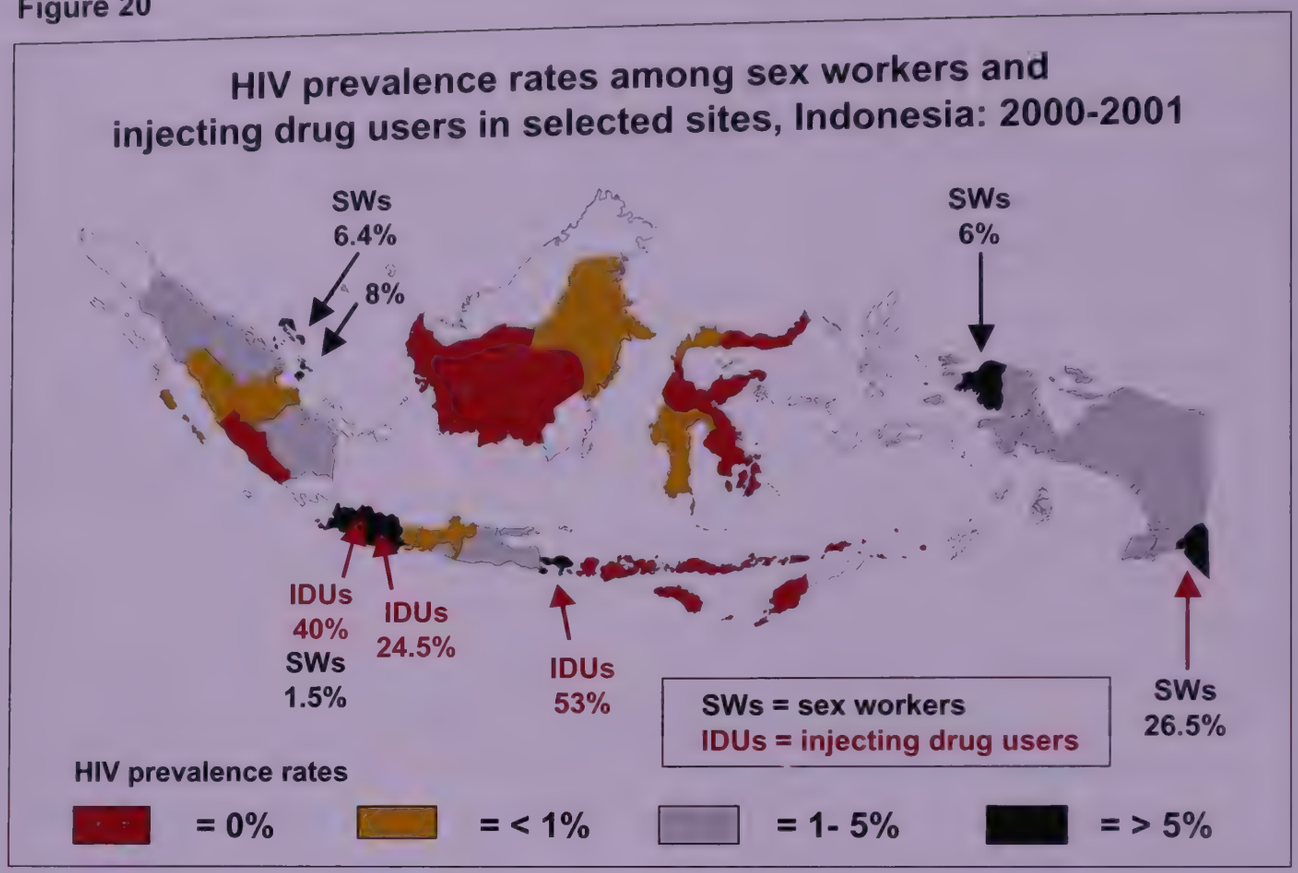
Large-scale epidemics always begin as localized outbreaks before spreading more widely across regions and communities. In Nairobi, Kenya, HIV prevalence among female sex workers surged from 4% in 1981 to 61% in 1985, while prevalence among pregnant women rose from 0% in 1981 to only 2% in 1985, before its subsequent steep rise.

The danger signs of impending epidemics are now familiar, but the exact pace of the epidemic's growth still cannot be predicted with certainty. In Thailand, for example, the virus was first detected in 1984, but did not start spreading virulently among sex workers and their clients until five years later. Similarly, in the Nepalese city of Kathmandu, needle-sharing was rife in the early 1990s, yet HIV infections among injecting drug users stayed negligible for six or seven years before rising sharply to the point where, by 1997, nearly half the users were infected.

In Indonesia, anonymous HIV testing of sex workers began in 1988 and, for almost a decade, registered virtually no HIV infection. The results were puzzling because other research was showing that sex work was common, condom use very low, and other sexually transmitted infections highly prevalent. The absence of a HIV epidemic may have been partly because sex workers in Indonesia had a relatively low turnover of partners—around seven in a week, on average, compared with over 30 a week in Thailand at the height of the HIV rise in that country.

But new data suggest that there has been a surge in HIV infection among sex workers in some Indonesian locations. Figure 20 depicts provinces where high rates of HIV infection have now been recorded among sex workers and drug users. Large-scale migration, in the wake of the 1997–98 economic crisis and political instability and violence in parts of the country, may also explain increased vulnerability.

Figure 20



Source: Indonesian National AIDS Commission (2001) *HIV/AIDS and other sexually transmitted infections in Indonesia: challenges and opportunities for action*

Prevention and condoms

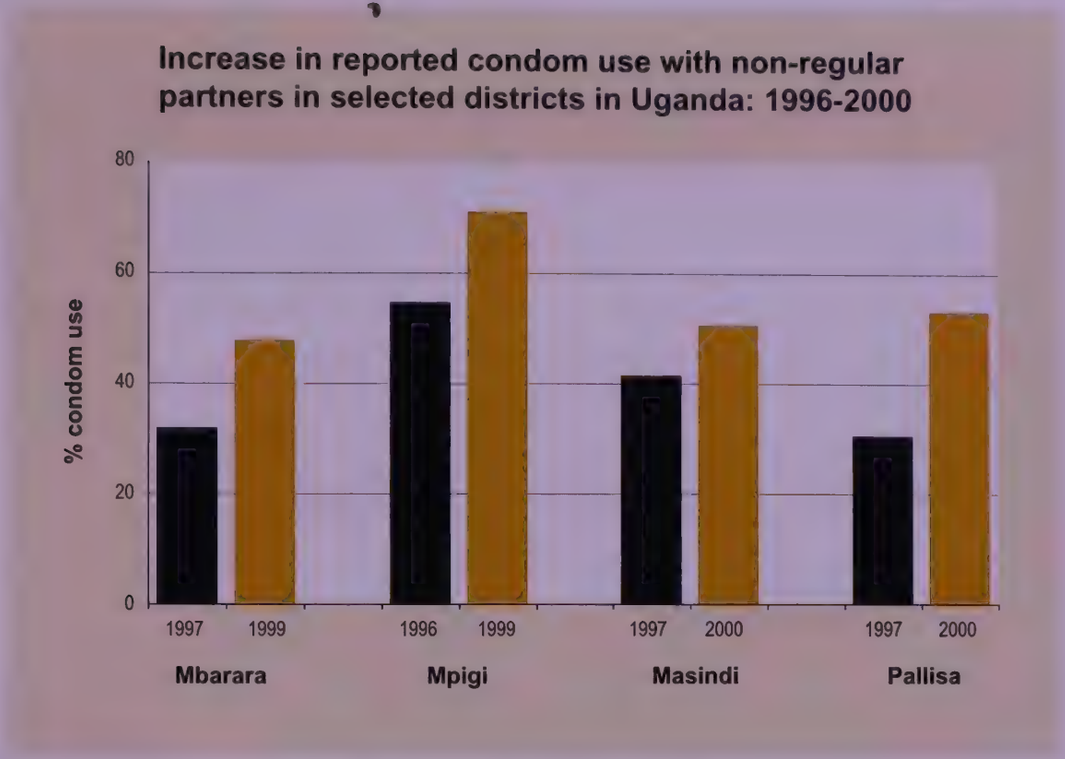
Condoms are key to preventing the spread of HIV/AIDS and sexually transmitted infections, together with sexual abstinence, postponement of sexual debut, and mutual fidelity. Uganda's success in curtailing the spread of HIV can be attributed to behavioural change, notably a reduction in the number of individuals' sexual partners and the postponement of sexual debut among young people. Decline in infection rates among young people has been mostly due to the rise in the median age of first intercourse by 2 years—from age 15 to 17. But increased condom use (see Figure 21) and treatment of sexually transmitted infections have played an important role.

The US National Institutes of Health and the US Centers for Disease Control and Prevention conducted an extensive review of available studies, and confirmed that condoms, when used correctly, are an effective means of preventing HIV infection in women and men, and gonorrhoea in men. Without access to condoms, many other prevention strategies (such as behavioural change communication and sexual and reproductive health education in schools, not to mention family planning campaigns) lose much of their potential effectiveness.

The condom gap

An estimated 6–9 billion condoms are distributed annually (including those sold commercially)—considerably fewer than the estimated 8–24 billion condoms that are

Figure 21



Source: STD/AIDS Control Programme, Uganda (2001) *HIV/AIDS Surveillance Report*

needed if all populations are to be able to protect themselves from HIV and other sexually transmitted infections. In sub-Saharan Africa alone, the condom gap has been estimated at 2 billion a year (see Figure 22).

To overcome the supply gap, the United Nations (through the United Nations Population Fund, World Health Organization and the UNAIDS Secretariat) is collaborating with international nongovernmental organizations, specialized agencies and public and private donors. Cost is a major issue. The United Nations Population Fund estimates that the number of condoms needed to prevent HIV/AIDS and other sexually transmitted infections will more than double in the next 15 years. Costs will rise from US$239 million in 2000 to an estimated US$557 million in 2015. This total does not include distribution, training or counselling costs. Low-income countries will need plans that address supply problems along with steady increases in donor support to meet condom costs.

Increasing condom accessibility and availability can increase condom use. In Brazil, there was a massive increase in the uptake of condoms when prices came down in the early 1990s. When Ford South Africa made mass condom distribution part of its HIV/AIDS strategy and put condom distribution machines in workplace toilets, uptake increased 25-fold.

However, supply is not the only determinant of condom use. Almost everywhere, sexually active young people (especially young women) are denied information about condoms. Researchers in Kenya report that 54% of young people do not believe that condoms protect against HIV infection. There, as in many other countries, attempts by government and nongovernmental organizations to promote condom use have met with opposition from some religious organizations that claim that condoms promote promiscuity. But religious opinion is not monolithic. In Uganda, for example, a dialogue between the Islamic Medical Association and Muslim reli-

Figure 22

Source: Shelton JD, Johnston B (2001) Condom gap in Africa: evidence from donor agencies and key informants, *British Medical Journal*

gious authorities resulted in a statement by the latter that education an the responsible use of condoms was both acceptable within Islamic teachings and necessary to defend communities against AIDS.

A recent analysis of study samples from eight countries in sub-Saharan Africa found that attitudes towards condom use also depended on the nature of relationships. In marital and regular relationships, many people said that they did not use condoms because they 'trusted' their partner; in regular and casual relationships, people frequently cited a dislike of condoms. This suggests that condom promotion messages need to be tailored to context: couples in steady relationships may need to be convinced that using condoms is a primary means of caring for each other's health.

The way ahead

Condom programming works best as part of a comprehensive 'package' of interventions that include HIV/AIDS education, sexual health and human sexuality, and gender sensitivity training.

Since it was first introduced by public health authorities in Ratchaburi Province, Thailand's innovative 100% Condom Use Programme for commercial sex has become known as one of the most effective HIV prevention measures ever. The programme required that condoms be used in all sex

work establishments—a tactic that helped prevent clients moving on to locations where condom use was not insisted on. After being adopted as a national policy by the Prime Minister in 1991, and expanded nationwide, the programme resulted in more than 90% of sexual encounters with sex workers by 1994 being protected by condoms (compared with a pre-programme rate of 14%). The programme worked with sex workers and their clients, health authorities and the police, and gained brothel owners' support. At the same time, the Thai Government embarked on large-scale, mass-media, AIDS-awareness campaigns. Recent reviews of the programme credit it with being an "important contributor to large-scale reduction of HIV transmission throughout the country". Similar strategies have been adopted in Cambodia, and in local interventions in countries such as Cameroon, the Dominican Republic and Myanmar.

Social marketing—the use of commercial techniques such as market research, mass-market distribution and communication to achieve a social goal—has achieved some success. In Cambodia, condom social marketing has been promoted since 1994. 'Number One' brand condoms are marketed to young adults, commercial sex workers and their clients, and members of the military and police. Sales of condoms in Cambodia increased dramatically from 99 000 to more than 16 million in 2001, with distribution to all 24 provinces and municipalities.

These types of interventions, though, need to be buttressed by policies that ideally promote, but, at the very least, do not restrict, the distribution and use of condoms. Unfortunately, laws and practices in many countries still make it difficult for young people to get condoms, and allow the possession of condoms to be used as evidence to prosecute sex workers.

Female condoms: some progress...

Pilot programmes in the past few years have shown that the female condom is a viable HIV prevention option for women (and, in some contexts, men).

Made of polyurethane plastic, it requires no special storage. It can be inserted into the vagina several hours before sex, and it can be used with oil-based or water-based lubricants. For these reasons, the female condom can be of particular value in HIV prevention among sex workers.

In Viet Nam, an acceptability study carried out in Hanoi during 2000 found that 320 of the 428 women who tried the female condom said they would continue using it, provided it was free or affordable. Acceptability was strongest among sex workers, 84% of whom said they would want to keep using the female condom.

Since 1999, UNAIDS has worked closely with the female condom manufacturer, the Female Health Company, to increase the interest of government and nongovernmental agencies in female condom programmes. Ghana is one of the countries that now has a national programme to boost female condom use, including high-level political commitment (notably, in the person of the former First Lady, Nana Konadu Agyeman Rawlings), social marketing, and distribution by both the public and private sectors.

Controlling sexually transmitted infections

The World Health Organization estimates that over 300 million people are infected each year with curable sexually transmitted infections, a large share of which occur among young people. The presence of such infections magnifies the risk of HIV transmission during unprotected sex as much as tenfold (since the infection creates additional entry points for the virus or facilitates viral replication).

Many of these infections (including the four most common: syphilis, gonorrhoea, *Chlamydia* and trichomoniasis) can be cured relatively easily with antibiotic treatment. But lack of services, poor availability of drugs, limited access to diagnosis, and disparaging attitudes by service providers are barriers to more effective detection and treatment of sexually transmitted infections as part of HIV/AIDS prevention.

These problems are surmountable. A great deal has been learned about making services more user-friendly, and adapting them to suit specific groups. In addition, research in low- and middle-income countries has confirmed the effectiveness of syndromic management in resource-poor settings. Syndromic management involves recognizing clinical signs and patient symptoms (or syndrome) and prescribing treatment for the major causes of that syndrome. It enables health workers who lack specialized skills and access to sophisticated laboratory tests to effectively treat most symptomatic infections during a patient's first clinic visit.

A study of community-based syndromic management of sexually transmitted infections in Mwanza, United Republic of Tanzania, showed that the number of new HIV infections in the study population was cut by 42%. However, another intervention, based on mass treatment of sexually transmitted infections with antibiotics in Rakai, Uganda, did not reduce HIV incidence. This suggests that efforts to treat and control sexually transmitted infections are more likely to also reduce HIV transmission if they form part of broader, comprehensive HIV/AIDS prevention programmes.

Several recent studies highlight the likely importance of the Herpes Simplex Virus-2 (HSV-2) as a co-factor of HIV susceptibility. A study in South Africa has found that HSV-2 was the most significant factor associated with HIV among both men and women, and that men infected with HSV-2 were seven times more likely to be HIV-positive than those without it. HSV-2's co-occurrence with HIV indicates that HSV-2 control (both prevention and treatment) may be a valuable part of HIV prevention. But many obstacles must first be overcome. There is no cure for HSV-2 and vaccines are still in Phase II trial, so infection is life-long and ulcers will reappear periodically throughout an infected person's life. Treatment for the ulcers requires relatively expensive drugs, only one of which (acyclovir) is available in generic form. Moreover, testing for HSV-2 is difficult in poorer countries, because affordable testing kits are not as accurate as the laboratory-based tests used in wealthier countries. In such conditions, early sexual education and promotion of consistent condom use remain the best prevention methods.

Reaching those in need

HIV/AIDS epidemics in many countries are concentrated in specific populations that are often marginalized and vulnerable to a broad range of health and psychosocial difficulties apart from, or in addition to, HIV/AIDS. Complex and interlinked factors influence their vulnerability. Firstly, their socioeconomic circumstances (such as poverty, lack of education, displacement, separation from families, etc.) may hinder their ability to protect themselves, and may reduce their access to HIV prevention and care information, services and commodities. Secondly, HIV prevalence among their social networks may be higher than in the general population. Thirdly, they may engage in specific high-risk behaviours such as sharing drug-injecting equipment or having unprotected sex with persons whose serostatus is unknown.

Such populations include injecting drug users, sex workers (and their clients), men who have sex with men, prisoners, marginalized young people, refugees and displaced persons, trafficked persons, socially excluded indigenous populations, and itinerant and mobile workers (such as seafarers, long-distance truck drivers and seasonal workers). Reaching these groups is vital for the success of an AIDS response. As many of these populations do not have access to mainstream HIV/AIDS services, outreach and peer network approaches must bring services to where they work, live and socialize. The most effective interventions and programmes are those that are tailored to the specific realities and needs of the people for whom they are intended.

Men who have sex with men

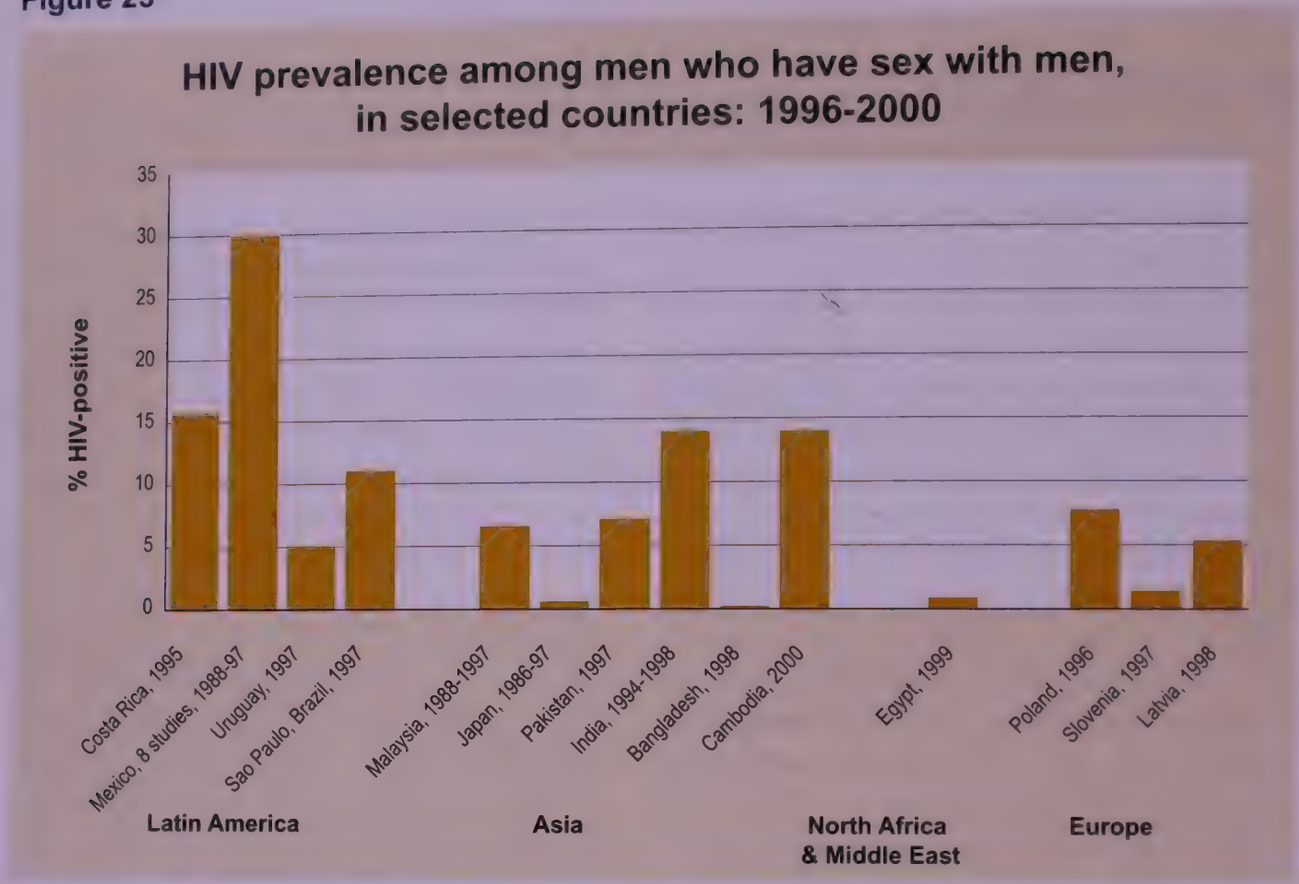
In varying degrees, male-to-male HIV transmission is a factor in all HIV epidemics. It has been the predominant mode of transmission of HIV in most high-income countries. In the USA, male-to-male sex accounted for the largest proportion (42%) of annual new infections in 2000, while, in Australia, it accounted for 85% of infections in 2000. Significant HIV prevalence among men who have sex with men has been detected in countries around the world, as shown in Figure 23.

Where male-to-male sex is repressed legally or through strong social sanctions, men who have sex with men are at especially high risk of HIV infection, since they are harder to identify and reach with preventative services. Countering the discrimination and violence endured by men who have sex with men is therefore a vital part of an effective AIDS response.

Underground, not isolated

Reliable data from countries as diverse as Brazil, Colombia, India, Mexico, Pakistan and Thailand confirm that many men who have unprotected sex with other men also have unprotected sex with women. In Latin America and the Caribbean, the population of men who have sex with men is diverse, many of the men also have sex with women, HIV rates are sig-

Figure 23



Sources: Country data compiled by US Census Bureau (1996-2000); Cambodia data reported in: *Monitoring the AIDS Pandemic (MAP): the status and trends of HIV/AIDS/STI epidemics in Asia and the Pacific (2001)*

nificant and, as a result, the epidemic is steadily reaching their female partners. A recent study by the Senegalese National AIDS Commission in Dakar, Senegal, reported that 88% of surveyed men who have sex with men also had sex with women, and 15% were married. Only 14% said they used condoms the last time they had sex. In addition, 37% of the men surveyed reported that they had been raped in the previous year, some by policemen.

Gay communities in high-income countries have been at the forefront of the response to HIV/AIDS, and have mounted very successful prevention efforts, although a resurgence of unsafe sex among men who have sex with men (see 'Global overview' chapter) shows the need to constantly renew and reinforce such efforts. In much of Africa and Asia, however, prevention efforts among men who have sex with men have barely begun. In many middle- and low-income countries, male-to-male sex and HIV transmission tend to be statistically hidden and officially denied. In much of Africa, for example, male-to-male sex is scarcely acknowledged, although self-identified gay groups have been in existence for several years in South Africa and Zimbabwe. Similar groups have recently been formed in Kenya and Senegal.

The Bandhu Social Welfare Society (in Dhaka, Bangladesh) and Sahodaran (in Chennai, India) are community-based agencies providing both outreach and on-site services to men who have sex with men. 'Safe spaces' in their central offices offer stigmatized and marginalized men an opportunity to socialize and to access a range of services. Bandhu Social Welfare Society has an innovative clinic service

Male sex workers

Male sex work occurs in every region of the world but is often deliberately ignored or heavily repressed. Many men who sell sex have commercial and non-commercial male and female partners; they therefore represent a potential for both heterosexual and homosexual transmission. Importantly, they might not see themselves as homosexual or as sex workers.

Despite these formidable obstacles, prevention programming can be successful among this highly vulnerable group, as Morocco's *Association de Lutte contre le SIDA* (ALCS) has shown. As in many other countries, male sex work in Morocco is typically but mistakenly associated mainly with tourism. In fact, it is also prevalent among Moroccans, even in smaller cities, despite the fact that homosexuality in Morocco is a punishable offence. Action research by ALCS found that about two-thirds of male sex workers relied on paid sex as their main source of income, and more than a third (of the total) practised the trade only with other Moroccans. Armed with this information, ALCS set up a drop-in centre and outreach projects, offering peer education, condoms and referrals to local health services for diagnosis and treatment of sexually transmitted infections, and HIV counselling and testing. Surveys later showed that 93% of the men preferred to get condoms from outreach workers, and that regular use of condoms increased. More men also used the voluntary counselling and testing services.

for sexually transmitted infection diagnosis and treatment and Sahodaran has contributed strongly to national advocacy. Similarly, recent years have seen a series of prevention projects established in Eastern Europe and Central Asia by gay organizations in collaboration with local authorities, with support from UNAIDS Cosponsors and the UNAIDS Secretariat. The projects are established in Minsk, Belarus; Bishkek, Kyrgyzstan; Karaganda and Almaty in Kazakhstan; and Tashkent in Uzbekistan.

As in high-income countries, the solidarity of highly-placed or well-known individuals can be very helpful in fighting the stigma faced by this vulnerable population. In Haiti, for example, the country's First Lady recently gave public support to GRASADIS (*Groupe de Recherches et d'Action Anti-SIDA et Anti-Discrimination Sexuelle*), which provides outreach and peer education for men who have sex with men.

Injecting drug users

The illicit drug trade has, over the past 25 years, grown into a multi-billion-dollar industry that spans the planet. By the end of 1999, injecting drug use was being reported in 136 countries; in 114 of them, HIV cases resulting from injecting drug use had been reported. Drug trafficking is now a global phenomenon, touching some 170 countries and territories. It is estimated that up to 10 million people worldwide inject drugs.

The case of Temirtau

In parts of Eastern Europe and Central Asia, jolting socioeconomic change, marked by high unemployment, has created a sense of despair for millions, including the young.

A generation ago, the Kazakhstan city of Temirtau hosted a steel plant that was one of the largest steel producers in the former Union of Soviet Socialist Republics. In 1995, the plant was sold off, production was slashed, and thousands of workers were sacked. Livelihoods disappeared, and services (including schools and hospitals) were shut down. Injecting drug use soared, together with outbreaks of HIV/AIDS. By 2000, an estimated 3000 of the 32 000 young people (15–29-year olds) in Temirtau were injecting drugs. In the late 1990s, the Government of Kazakhstan and various United Nations agencies set up a multisectoral programme in Termirtau and the surrounding Karaganda region to reverse drug use and reduce HIV levels. By 2000, the effects were becoming visible, with surveillance studies showing that HIV infection among recent users in the city had dropped from 15% in 1997 to 5%.

Asia is estimated to have the largest number of injecting-drug-related HIV cases. Injecting drug use is also a major factor in HIV epidemics in North America, Western Europe and in parts of Latin America, the Middle East and North Africa. In some Eastern European countries, especially in countries of the former Soviet Union, injecting drug use is driving major HIV/AIDS epidemics among young people, and many outreach programmes report rising numbers of sexually active teenage drug users.

Drug users are part of society

Injecting-drug-related HIV epidemics do not remain limited to injecting drug users. Most injecting drug users are young, male and sexually active. They are likely to acquire or transmit the HIV virus not only by sharing injecting equipment but also through sexual intercourse with regular or casual partners. Injecting drug use also overlaps profoundly with the sex trade, with users often buying sex, or selling sex to finance their drug dependencies. In 2000, in Hanoi, Viet Nam, 20% of street-based female sex workers reported recent drug injection, while 23% of male injecting drug users bought sex; in Bangladesh, the corresponding figures were 14% and 50–75% respectively.

Preventing HIV infection

Stopping the spread of HIV among injecting drug users requires a comprehensive approach, including drug-dependency treatment and rehabilitation; HIV/AIDS education; access to clean needles/syringes and condoms; legal and social services; and voluntary HIV testing and counselling and psychosocial support. It also requires efforts to deter people (especially young people) from initiating injecting drug use.

There is strong evidence to show that effective and humane drug treatment not only reduces drug abuse, but also diminishes HIV risk. A basic ethical principle is that drug control policies must reduce, not augment, the HIV risk faced by drug users, and HIV-prevention activities must not inadvertently promote drug abuse.

Disproving the myth that needle-exchange increases drug use

One of the most closely studied issues in the history of HIV-prevention programmes is whether needle and syringe provision is effective in limiting the spread of HIV, or whether it just encourages drug use. The evidence points to effectiveness, rather than to increased drug use.

When clean-needle services were offered in California in the 1990s, the percentage of new initiates into injecting drug use fell (from 3% to 1%), regular users injected less frequently, and needle-sharing decreased by more than 70%.

A global review of clean-needle/syringe programmes implemented between 1988 and1993 found that, in 29 cities with needle-exchange programmes, HIV prevalence among injecting drug users fell by an average of 5.8% a year, and the number of users did not increase. In contrast, in 52 cities lacking such programmes, HIV prevalence among injecting drug users rose by almost 6% each year.

Research in Canada has highlighted the limitations of some needle/syringe-exchange programmes. For example, studies in Vancouver and Montreal, where cocaine injection is prevalent, have demonstrated the importance of tailoring programmes to meet local conditions. Cocaine injectors tend to inject much more frequently than heroin injectors, and therefore require much greater quantities of sterile needles and syringes than usually provided by most needle-exchange programmes.

Another major limitation of needle-exchange and other interventions targeting drug users is that they often miss occasional or recreational drug users. This is an increasingly important issue, especially among young people, as this population is missed by many programmes targeting self-identified injecting drug users.

Small, isolated prevention efforts might slow the pace of the epidemic, but not for long, as Nepal's experience has shown. Needle-exchange programmes there began as early as 1991; by 1995, some researchers were claiming that the interventions had averted a HIV epidemic among injecting drug users. But, by 1997, almost half the users tested in Kathmandu were infected with HIV. The needle-exchange programme was too limited and too localized to have a powerful, lasting impact. It had to be expanded. Needle and syringe programmes have also been expanded elsewhere, notably in some countries in Europe and in Australia. In 2000, in England and Wales, there were 420 syringe-distribution programmes, distributing 27 million syringes, equivalent to 180–540 syringes per injecting drug user per year.

Dealing with the law

Evidence from high- and low-income countries shows that effective prevention and care programmes can be mounted despite the marginalization, social stigma and legally-penalizing environment that mark injecting drug users' lives. But the programmes tend to be most successful when laws and police practices facilitate outreach work and service provision to injecting drug users.

For many years, Manipur in India was emblematic of a region in the grip of a rising injecting-drug-related HIV epidemic. By the late 1990s, there were already an estimated 40 000 injecting drug users in Manipur, as many as 60% of whom were HIV-positive. To many observers, it seemed a 'lost cause'. But, after studies had revealed that most of the users shared injecting equipment because they feared arrest if caught with needles and syringes, the Society for HIV/AIDS and Lifelines Operations (SHALOM) took the bold step of setting up a needle- and syringe-exchange programme in Churachandpur township. Police were consulted and persuaded not to harass SHALOM workers or users found with injecting equipment. HIV incidence among users dropped from almost 77% in 1997 to just under 59% in 2001—still high, but a marked decrease. Persuaded by the effectiveness of the programme, the Manipur Minister of State for Health integrated the approach into the official State AIDS policy.

Bigger official obstacles were cleared in Ukraine, where, in 1998, the parliament added to a HIV/AIDS law the State's guarantee that it would work to facilitate the provision of needle-exchange services for injecting drug users. This hard-won law reform also abolished the mandatory testing of users. Political and public opinion at first had been fearful that the changes would spur drug use and other social problems. But a strong information campaign and widespread public debate gradually convinced voters and legislators that the reforms were ultimately going to benefit all society. Currently, in 2002, 37 needle-exchange projects operate in the country, and are estimated to reach around 20% of all users.

In Brazil, a law was approved by Congress in 2002, authorizing the Ministry of Health to establish national policies for specific HIV programmes targeting injecting drug users (although pragmatic public health officials had already been implementing them for many years). A national survey among injecting drug users showed that consistent use of condoms in this population increased from 42% in 1999 to 65% in the year 2000. In the same period, syringe- and needle-sharing decreased from 70% to 41%. As a result, between 1996 and 2000, HIV prevalence among injecting drug users dropped in several cities. In Santos, Sao Paulo State, the drop was from 65% to 42%; in Salvador, from 49% to 7%; and in the city of Rio de Janeiro, from 25% to 8%.

Changing habits

Drug substitution programmes, along with a range of other health and referral services, have been successfully introduced in some places. An example is the Mexican nongovernmental organization, Companeros AC, which has run a programme since the mid-1990s, promoting detoxification and rehabilitation alongside specific HIV-prevention efforts targeting injecting drug users. It helps injecting drug users make behavioural changes that are realistic for them and that are most likely to be sustained—from outright cessation of drug use to adopting less harmful habits. Fieldwork is carried out in prisons as well as in the wider community. Information leaflets are distributed, along with packages containing condoms, bleach, and education leaflets. Rehabilitation services incorporate complementary treatments such as acupuncture and herbal medicine. Education and support are provided to the families and partners of people who inject drugs.

Prevention for prisoners

Removed from society, prisoners can be at special risk of HIV infection—mainly through injecting drug use, voluntary or forced sex, unsafe tattooing practices, and insufficient HIV-prevention information, education and services.

Many countries report at least some injecting drug use in prisons. Because needles are very difficult to obtain in these situations, sharing is particularly common and the potential for the spread of HIV significant. In Australia, about a quarter of prisoners inject drugs while incarcerated, according to a 2000 study. A study of 3200 imprisoned injecting drug users in seven European Union countries (Belgium, France, Germany, Italy, Portugal, Spain and Sweden) revealed that 45% of the respondents had injected drugs in prison, and 7% had started to inject while behind bars. Comparable statistics from low- and middle-income countries are less readily available. But some recent findings confirm anecdotal evidence that the risk of HIV infection through injecting drug use can be high. In Iran, for example, 10 prisons had reported HIV infection among injecting drug users by 2001, with one site reporting prevalence as high as 63%. HIV prevalence of jailed injecting drug users in a prison in Bali, Indonesia, was reported at 53% in 2000.

In an environment designed to administer legal punishments, it is not surprising that drug use by inmates is often met with further punishment. Yet this may backfire—and even increase injecting drug use among prisoners. Research into mandatory drug screening in United Kingdom prisons found that inmates shifted from smoking marijuana (which is detectable in urine for several weeks) to injecting heroin (which disappears from urine after one or two days). Countries that, in the past, tried to counteract HIV transmission in prison with compulsory testing and isolation of HIV-positive inmates are now revisiting those policies. Ukraine, for example, recently introduced a new policy based on extensive education, the introduction of voluntary counselling and testing, the integration of HIV-positive prisoners, and confidentiality regarding HIV status.

Some prison systems are moving beyond offering information on HIV risks, towards safer injecting drug use by providing bleach to sterilize needles and syringes, making sterile needles available, and offering methadone maintenance treatment. Programmes addressing the specific needs of injecting drug users have also been supplemented with condom provision to reduce the sexual transmission of HIV.

Sex in prisons

Sex—consensual or forced—among inmates is another source of risk of HIV infection, especially in countries where HIV spread is already substantial. In a survey conducted among 1100 male prisoners in Russia, only 10–15% of them reported having had no sexual contacts while incarcerated. A survey in Brazil found that 73% of male prisoners had had sex with other men in penal institutions. Forced sex was widespread. Consensual and forced sex with men is also the experience of many female inmates. Prisoners taking part in a study of New York State prisons and city jails, for example, reported frequent unpro-

Reducing harm behind bars

Needle- and syringe-exchange programmes are still rare, but on the increase. Since the first prison-based syringe-exchange programme was set up at the Oberschöngrün prison for men in Switzerland in 1992, studies in similar programmes have confirmed their effectiveness. Needle-sharing declined dramatically, no cases of inmates acquiring HIV, hepatitis B or C were reported in any of the programmes, and no serious unintended consequences were encountered. By 2001, sterile needles were being distributed in seven Swiss prisons. German and Spanish prison authorities have successfully introduced needle-exchange schemes in several prisons, while Greece, Italy and Portugal are considering similar initiatives. HIV prevalence among Spanish prisoners has declined from 23% in 1996 to 17% in 2001, due largely to innovative programmes to prevent the spread of HIV among prisoners. Spanish prisons provide substitute programmes for heroin users (methadone programmes), and nine of the country's prisons have begun introducing needle- and syringe-exchange programmes. Education, counselling and condom distribution complement these activities.

tected sex in prison, including between male prison officers and female inmates.

Condom provision to prisoners is rare, except in Europe. By 2000, 16 high-income countries (together with Brazil and Costa Rica) provided condoms in prisons. In Europe, the proportion of prison systems that had made condoms available rose from 53% in 1989 to 81% in 1997. In the most recent survey, condoms were available in all but four systems.

Sex workers and their clients

Sex work is clandestine and illegal in most societies, which makes it difficult to gauge the numbers involved in it. But it is a global phenomenon and a powerful social and economic factor in many countries. By the International Labour Organization's estimates, the sex work industry accounted for more than 2% of gross domestic product in four South-East Asian countries by the late 1990s.

In countries where heterosexual intercourse is the main mode of HIV transmission, HIV epidemics tend to be concentrated initially among sex workers and their clients before becoming established in the wider population.

A steep rise in HIV prevalence among sex workers is an alarm signal that HIV rates in the wider population are very likely to increase unless effective prevention efforts are introduced. In Abidjan, Côte d'Ivoire, for example, HIV prevalence rates among female sex workers went from 38% in 1987, to 69% in 1990, and 80% in 1992–1994. Major shifts in HIV prevalence among antenatal clinic attendees lagged about half a decade behind, rising from 3% in 1986, to 13.8% in 1999.

Where sex work is widespread but clandestine, this often reflects entrenched gender inequalities. In such places, men's social, economic

and political status eclipses that of women, double standards encourage multiple partners for men but not for women, and women's limited educational and livelihood opportunities compel many into some form of sex work. While economic necessity is often the driving motivation for many in sex work, it is not necessarily the only one. Research in the Philippine sex industry, for instance, has found that some sex workers operating out of bars and clubs had worked in formal employment (and still had that option), but opted instead for the slightly lower earnings and risks of the sex trade over the long hours working on assembly lines. Others are coerced into sex work through violence, debt bondage, or trafficking.

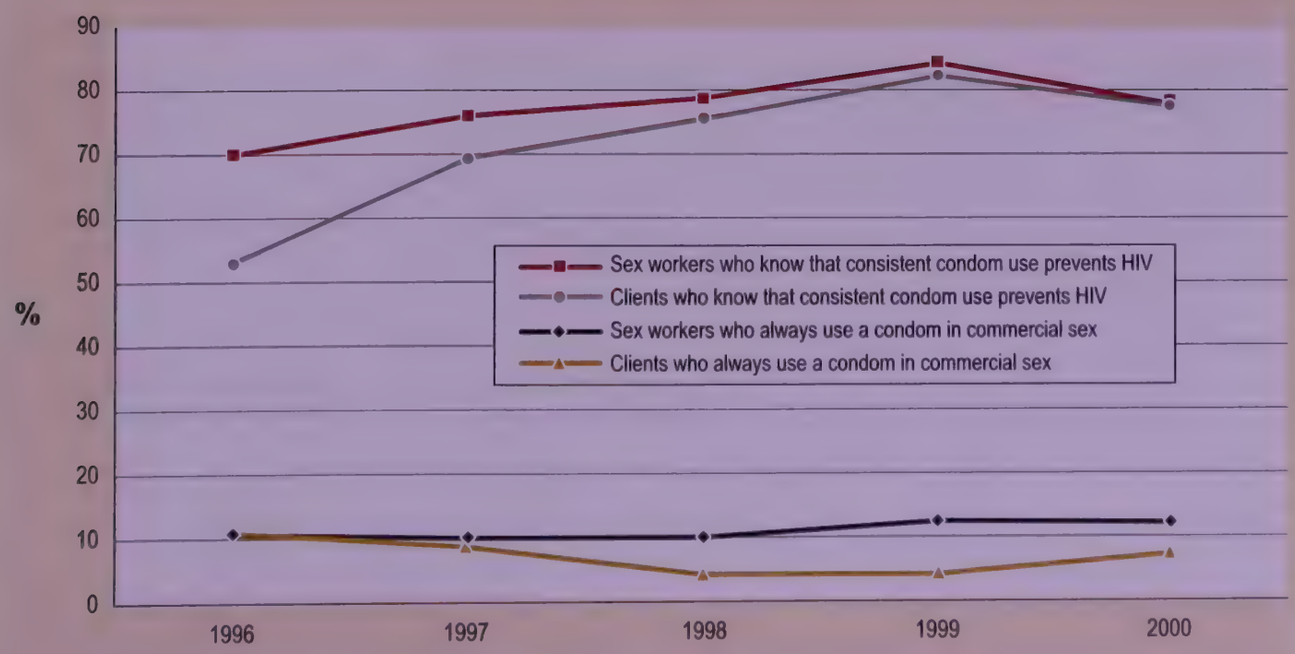
The gap between knowing and doing

It can be difficult or impossible for sex workers to insist on safe sex. Reluctant clients might react with violence or simply move on to someone willing to forego a condom. A recent analysis of condom use by sex workers in Kolkata, India, has found that clients were willing to pay almost double the fee for sex without a condom.

In parts of Indonesia, research shows that almost all sex workers know about HIV/AIDS and over three-quarters know it can be avoided by using condoms. However, as Figure 24 shows, there is a significant mismatch between these women's knowledge and practice. Male

Figure 24

Knowledge and behaviour among sex workers and their clients in Jakarta, Surabaya and Manado, Indonesia, 1996-2000



Source: FHI (2001) *What drives HIV in Asia? A Summary of Trends in Sexual and Drug-Taking Behaviours*

clients were even less likely to always use condoms with sex workers, even though most knew that condoms could protect them from HIV and other sexually transmitted infections. The differences were consistent across the country.

Getting prevention right

Effective HIV prevention among sex workers addresses the social, economic and legal environments in which they live and work. Sex workers must be involved and empowered through the projects. Efforts must win the cooperation and support of control points in the sex industry, such as brothel owners, bar managers, pimps and the police. It is essential to tackle the prejudice that sex workers endure, and to weave other concerns into the programmes, such as care for their families and children.

The Sonagachi sex worker project in Kolkata, India remains a benchmark example of this approach. About one-third of the 5000 sex workers operating there come from Bangladesh and Nepal. Most work out of brothels. Extensive surveys were done of sex workers, clients, boyfriends and sex workers' children's needs. Sex workers themselves took part in the project's design and operation. Gradually, the scale and impact of the project grew, as women's groups, legal rights organizations and some government agencies backed the sex workers' bids to reform the social system in which they worked.

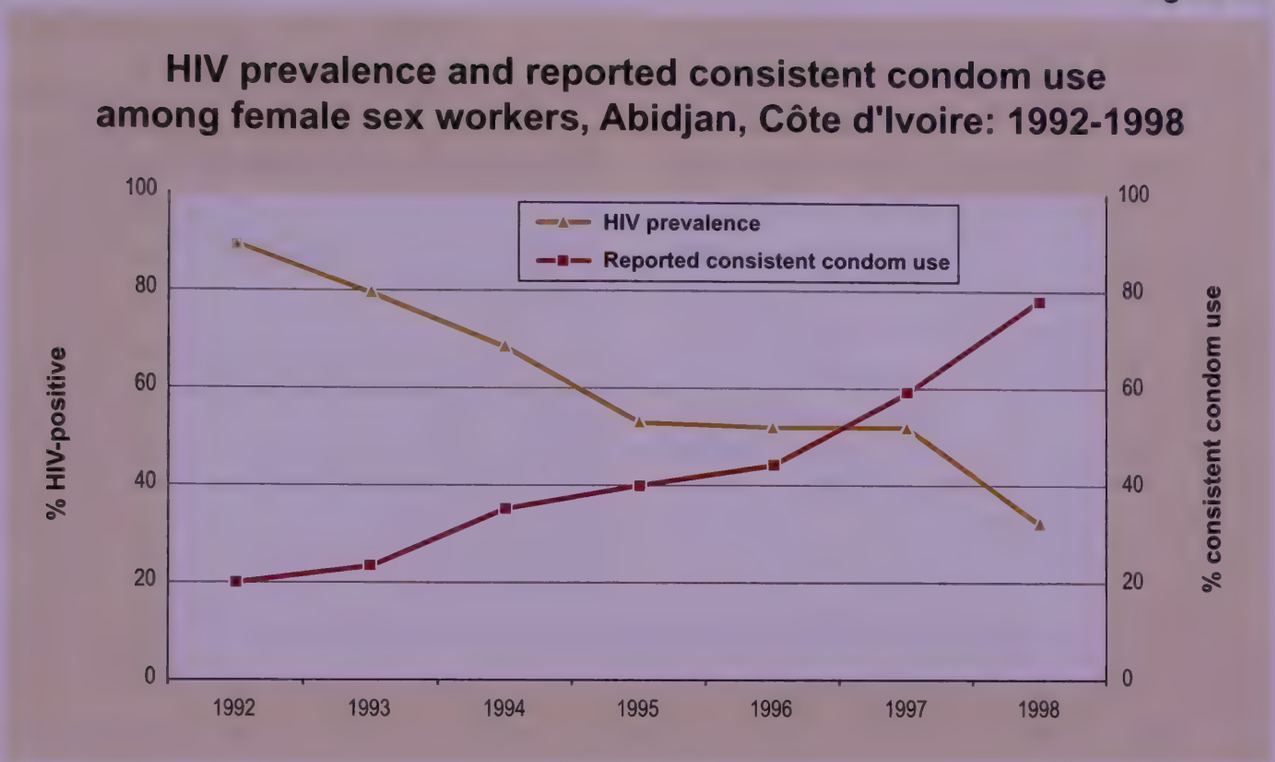
Sonagachi has been replicated in 30 red light districts reaching more than 31 000 sex workers in the state of West Bengal, and covering almost the entire state. The Sonagachi principle has also spread to Bangladesh, where both brothel- and street-based workers have been mobilized. Increasingly, in all these sites, sex workers' communities have been involved in community development, non-formal education, community banking schemes, vocational training, and children's schooling.

Peer education among sex workers

In West Africa, fairly large programmes using peer education have shown signs of success. In Abidjan, Côte d'Ivoire, the *Programme de Prévention et de Prise en Charge des MST/SIDA chez les Femmes Libres et leurs Partenaires* has worked closely with the *Clinique de Confiance* since 1991. In newly published findings of community-based surveys, 91% of sex workers reported using a condom with their most recent client, compared to 63% in 1991. Peer educators have also referred other sex workers to the *Clinique de Confiance* for confidential services such as diagnosis and treatment of sexually transmitted infections, as well as for HIV counselling and testing and health education. The overall prevalence of HIV infection among first-time attendees at the clinic decreased from 89% in 1992 to 32% in 1998, while reported consistent condom use increased from 20% to 78%.

Higher rates of condom use in sex work can be achieved. Recently-published findings of a study among sex workers in Cotonou, a low-HIV-prevalence city in Benin, show a significant rise in condom use (from 6% in 1993 to almost 81% in 1998/99) and a considerable drop in the prevalence of all sexually transmitted infections (including HIV, which fell from 53% in 1993 to just over 40% in 1998/99). The decade-long community prevention work undertaken among sex workers is credited with having helped achieve these reductions.

Figure 25



Source: Ghys PD et al. (2002) *AIDS*

Protecting rights, providing programmes

When sex work is illegal, it is driven deeper underground, and prevention efforts become more difficult. Sex workers (unlike their clients, usually) may be subject to police harassment, and carrying condoms can lead to arrest, fines or imprisonment.

However, important victories have been won for the protection of sex workers' human rights. Sex workers involved in Bangladesh's SHAKTI project helped achieve an important court decision recognizing sex work as a legal form of income-generation. In Papua New Guinea, the Transex project used a mixture of lobbying and activism to change the attitudes of the local police force, reducing its power over sex workers' lives and preventing it from obstructing the project.

In Caracas, Venezuela, the *Asociación de Mujeres por el Bienestar y Asistencia Reciproca* has been able to improve lives and safeguard the civil and political rights of sex workers since 1995. Recruited and trained as health promoters, a group of 40 sex workers have provided education in human rights, sexual and reproductive health, and HIV/sexually transmitted infection prevention to other women. They have also become the catalysts for a long-term programme that involved club, hotel and bar owners in the social marketing of condoms and information distribution. The association has made legal and psychological counselling available, and set up a system for channelling sex workers' claims of harassment to other non-governmental organizations capable of taking them up. Since the association began its work, police harassment has decreased, and bar and club managers now sell condoms in their establishments at affordable prices.

Uniformed services

International and national uniformed services, including peacekeepers, peace observers, national defence and civil defence forces, generally rank among the population groups most affected by sexually transmitted infections, including HIV/AIDS. In peacetime, sexually transmitted infection rates among armed forces are generally two-to-five times higher than in the general populace. This difference can be much greater in times of conflict, with infection rates increasing as much as 50 times.

ing mission in Cambodia found that 45% had sexual contact with prostitutes or other members of the local population during their deployment.

In some cases, the high level of HIV/AIDS in the military can undermine its overall preparedness and, thus, increase the risk of insecurity. Ministries of Defence of countries in sub-Saharan Africa report HIV prevalence averages of 20–40% within their armed ser-

4

Declaration of Commitment

By 2003, have in place national strategies to address the spread of HIV among national uniformed services [...] and consider ways of using personnel from these services who are educated and trained in HIV/AIDS awareness and prevention to assist with HIV/ AIDS awareness and prevention activities [...] (paragraph 77).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

The military environment

Several aspects of the military environment put its armed forces personnel at risk, including the fact that most soldiers are in the age group at greatest risk of HIV infection (15–24 years), as well as the ethos of risk-taking that characterizes the military. Yet, one of the most important factors that increase the risk of infection is the practice of posting personnel away from their own communities and families. Not only does this free soldiers from the discipline they might be subject to in their own communities, but it also removes them from their spouses or regular sexual partners. The resulting loneliness, stress and sexual tension increase risk-taking. A study of Dutch soldiers on a five-month peacekeep-

vices, and rates of 50–60% in countries where HIV/AIDS has been present for more than a decade. According to a US National Intelligence Council document, the military cost of AIDS is likely to be highest among the more modernized armed forces in sub-Saharan Africa, and especially in their officer ranks. As more officers and key personnel fall ill, the combat readiness and capability of such military forces are expected to deteriorate.

HIV/AIDS also jeopardizes the families and communities of military personnel. In many countries, a large number of young males either volunteer for, or are conscripted into, military services. When defence and civil defence forces are demobilized, there is a risk of broadening the spread of HIV.

Defending against AIDS

Military and other uniformed services need to address HIV/AIDS within their ranks and among those they have a mandate to protect. Changing the perception and behaviour of soldiers, police officers, border and customs officials can produce significant benefits for the general population. This is especially true in countries affected by war or civil unrest. Uniformed services also represent a unique opportunity for providing HIV prevention and education to a large 'captive' and influential audience—particularly the new young recruits, who represent an important peer group both within the uniformed services and their own wider communities.

An increasing number of countries (including Botswana, Chile, the Philippines, Thailand and Zambia) have successfully implemented prevention measures within their armed forces. In February 2000, Ukraine's Ministry of Defence launched a prevention programme to increase the HIV-related knowledge and skills, as well as to alter the behaviour, of its military personnel. Prevention training and counselling were provided to more than 200 military psychologists, who subsequently reached 20 000 soldiers and officers; material was developed for military educational institutions; and 180 000 condoms were distributed to the soldiers and officers. The US Department of Defense, as part of the 'LIFE' project, has also been a key player in promoting AIDS awareness among uniformed services personnel, in collaboration with the United Nations Population Fund and the UNAIDS Secretariat.

An important first step in defending against AIDS is to create a non-stigmatizing and non-discriminatory environment. This begins with full confidentiality for HIV testing—something not every country supports. Nevertheless, an Expert Panel, convened by the Executive Director of UNAIDS in early 2002, concluded that mandatory testing is not the most effective means of preventing the transmission of HIV in the context of peacekeeping, and that HIV tests, in and of themselves, do not efficiently prevent the transmission of HIV. The Panel stressed that voluntary counselling and testing should be provided to peacekeeping personnel and should be offered as part of a comprehensive range of integrated HIV prevention and care services.

Botswana shows the way

UNAIDS believes that military personnel who test positive for HIV should continue to perform the tasks for which they have been trained and can still execute. In addition, armed forces should provide care and support for personnel and family members living with HIV/AIDS, including continuity of care when they return to civilian life.

Among the uniformed services that have adopted this position is the Botswana Defence Force. It treats its HIV-positive military personnel in the same way as uninfected personnel. They are deployable within Botswana and are not discharged from service until they fail to meet certain performance standards. Even then, full medical benefits are extended to them and their beneficiaries. HIV testing is voluntary and confidential, and military personnel selected for training in countries that have mandatory HIV screening can refuse the training, with no penalties to the advancement of their careers. In addition, all Botswana Defence Force members and their families receive HIV-prevention counselling and education.

New prevention technologies

Potential technologies currently being pursued also hold the promise of radically changing the landscape of HIV/AIDS prevention. Most prominent are microbicides and vaccines against HIV.

Microbicides: the ultimate in female-initiated prevention?

As a form of 'chemical condom' that can be self-administered, microbicides could increase the options for women and men who find it difficult or impossible to persuade their partners to use a condom. Acceptability studies in South Africa, Uganda and Zimbabwe suggest that women who seldom or never use condoms could reduce their overall risk of infection if an effective microbicide were available to them at low cost.

Applied inside the vagina or rectum, a microbicide is intended to prevent infection with HIV and, possibly, other bacterial and viral sexually transmitted infections. It can be produced as a gel, cream, suppository, sponge or in other forms, and may also have contraceptive (spermicidal) properties. The ideal product would be odourless and colourless, and therefore undetectable to partners who refuse other forms of protection.

After the disappointment of the Phase III trial of nonoxynol-9 gel, an estimated 56 new products are in various stages of development, from pre-clinical stages to Phase III effectiveness trials. While no major pharmaceutical company has thus far invested in the development of a microbicide, research into this preventive option has recently been spurred by several grants from the Bill and Melinda Gates Foundation. The International Working Group on Microbicides, which includes public agencies from around the world among its members, continues to promote and facilitate the development of microbicides.

Vaccines: preparing for their arrival

Research to find a vaccine against HIV has been making steady progress in the past 10 years. Unfortunately, 'steady' is not fast enough for all the people who could benefit from it. Even if current attempts to speed up the research process and programmes for the introduction of vaccines are successful, there is little chance that vaccination against HIV will be available on a large scale before the end of the decade.

Declaration of Commitment

Encourage increased investment in HIV/AIDS-related research nationally, regionally and internationally, in particular for the development of sustainable and affordable prevention technologies, such as vaccines and microbicides, and encourage the proactive preparation of financial and logistic plans to facilitate rapid access to vaccines when they become available (paragraph 89).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

Why is finding a HIV vaccine so difficult?

An estimated US$400–500 million is currently spent on HIV vaccine research annually, with most of this going into basic research. Institutions involved in the global HIV vaccine effort include the US National Institutes of Health, the International AIDS Vaccine Initiative (IAVI), the US Centers for Disease Control and Prevention, the French *Agence Nationale de Recherches sur le SIDA* (ANRS), the European Community (through the EUROVAC programme), and several biotechnology and pharmaceutical companies. National AIDS vaccine research programmes are ongoing in Australia, Canada, Japan, Sweden, the United Kingdom and the United States of America. Low- and middle-income countries (including Brazil, China, Cuba, Haiti, India, Kenya, South Africa, Thailand, Trinidad and Tobago, and Uganda) are also actively involved in vaccine development and trials. WHO and UNAIDS have been actively supporting these national AIDS vaccine programmes.

Despite all this activity, the peculiarities of the HIV virus make finding a vaccine difficult and expensive. HIV differs from most other infectious diseases in that the virus directly attacks white blood cells that are central to directing the body's immune responses, leaving them incapable of controlling infection or preventing disease. 'Classical' vaccines, based on an entire microorganism (viruses or bacteria) that has been killed or rendered harmless, may not be safe enough to use against HIV as they could lead to HIV infection. Experimental HIV vaccines are therefore primarily based on parts of the virus, which makes the development of a vaccine even more challenging.

The multiple variants of HIV pose a further complication. Ten subtypes of the HIV-1 virus have been identified, and are distributed in different parts of the world. Researchers do not yet know whether a broadly protective vaccine will be possible or if a separate vaccine will be needed for each subtype. The most prevalent HIV subtypes are A and C, present in different regions in Africa, but the majority of the vaccines currently in trials are modelled on the genetic profile of subtype B—the one predominant in high-income countries.

Finally, HIV vaccine research remains a 'high-risk/low-return investment' for private sector industry. This is only partly because the greatest need for the vaccine is among low-income countries. An even greater obstacle—at least currently—is the inadequate scientific understanding of the mechanisms by which the virus evades the body's natural immune responses. Consequently, it is not known exactly what immune responses are necessary to prevent or control HIV infection.

Where are we now?

Developing a HIV vaccine is an arduous process. Experimental vaccines are first tested on animals, and the best vaccine candidates are then selected for possible testing on humans. Testing is then carried out on healthy volunteers in three phases. Phase I trials are done on 20–40 volunteers to confirm the vaccine's safety and whether it triggers useful HIV-specific immune responses. Phase II tests involve hundreds of volunteers to further check safety and assess the potency of immune responses. Phase III tests can last up to four years and involve field trials with thousands of volunteers, some of whom receive the vaccine while others form a control group. Extremely complicated from the logistical, sci-

entific and ethical points of view, these trials assess whether the candidate vaccine protects against HIV infection or the onset of AIDS.

Definitive results of the first Phase III trials of a candidate vaccine based on gp120 (an external protein of HIV) are expected in 2003. The first Phase III trial, with 5400 volunteers, has been ongoing in the United States, Canada and the Netherlands since 1998, and is based on subtype B. The second Phase III trial began in 1999 in Thailand, and is based on the B and E subtypes prevalent there, involving 2500 volunteers. Planning is under way to initiate a Phase III trial of another approach in Thailand in 2003, and additional candidate vaccines are entering Phase I/II trials.

An African AIDS Vaccine Programme, announced in Nairobi in June 2000, is bringing together African scientists, governments and institutions. They aim to complete at least one efficacy trial by 2007.

Providing the vaccine

While a useable vaccine is still many years away, discussion has begun on how to implement vaccination programmes once one exists. Usually, vaccines only arrive in low- and middle-income countries many years after they have recouped their costs in high-income countries. This cannot be allowed to occur with effective HIV vaccines, which need to be rapidly available and affordable to all who need them.

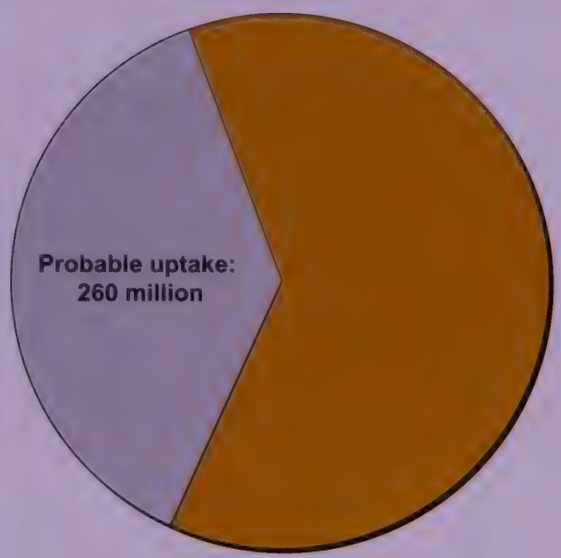
Mechanisms to ensure simultaneous access to AIDS vaccines in both low- and high-income countries must be prepared long before a vaccine is developed, in order to provide quick access to those who need it. The International AIDS Vaccine Initiative and others are proposing significant changes to existing approaches to vaccine production, licensing, pricing, purchasing and distribution. Among other issues is the need to harmonize national regulations and international guidelines governing vaccine approval and use. An important technical challenge will be that of creating the necessary production capacity, and supporting it with reliable estimates of demand for specific vaccines.

Many of the challenges in ensuring that a vaccine is available—and affordable—are similar to those relating to expanding access to antiretroviral drugs. Differential pricing, together with financial support from donors, will almost certainly be necessary for low-income countries. Technical assistance and coordination by international agencies will be needed. There are policy conundrums, too. Since the vaccination will not immediately be available to everyone, costs and benefits have to be calculated to determine where the initial focus should be. Policy-makers must also decide what to do if the first available vaccines are only marginally effective or have significant side effects.

WHO, UNAIDS and IAVI have collaborated on a study aimed at estimating the need for, and probable uptake of, preventative vaccines based on two potential scenarios: a low/moderate-efficacy vaccine (30–50% effective) and a high-efficacy vaccine (80–90% effective). A vaccination programme using a low/moderate-efficacy vaccine would need to be accompanied by intensive positive-behaviour counselling, so as not to undermine existing prevention efforts. Furthermore, it would be likely to have the most benefit if vaccination were targeted at populations most vulnerable to HIV infection. A high-efficacy vaccine could be delivered to larger segments of the general population.

Figure 26

Estimated need for, and probable uptake of, a high-efficacy vaccine

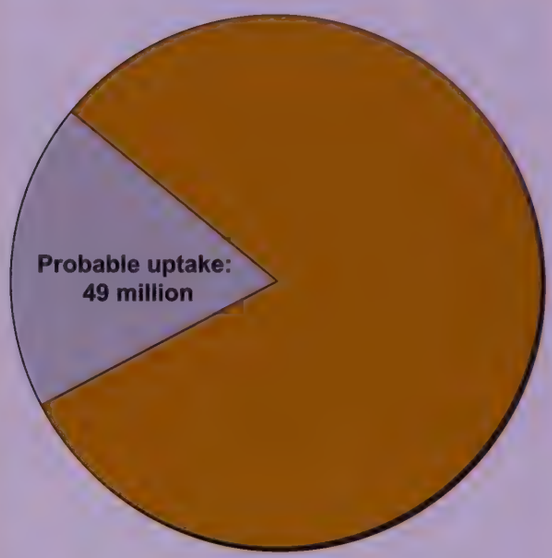


Total estimated need: 690 million

Source: UNAIDS/WHO, 2002

Figure 27

Estimated need for, and probable uptake of, a low/moderate-efficacy vaccine



Total estimated need: 260 million

Source: UNAIDS/WHO, 2002

Although it is difficult to predict the uptake of vaccines, in the absence of information on the cost of the vaccine itself and on the requirements for delivery (such as whether a vaccine requires cold storage, oral delivery versus delivery by injection, etc.), the study concluded that the probable uptake would be far less than the estimated need, both for a low/moderate- and a high-efficacy vaccine.

The unique stigma associated with HIV/AIDS may significantly hinder the uptake of HIV vaccination, once it becomes available. Discrimination faced by many of the communities most vulnerable to HIV infection may prevent individuals from coming forward for vaccination, particularly if programmes are focused only at individuals who might be at high risk of infection.

When an effective HIV vaccine is available, the international community and affected countries will have to make many critical decisions on how to use it. Extra investment in HIV/AIDS prevention and control will be necessary. Ultimately, however, this extra investment could yield a significant pay-off after a number of years, resulting, finally, in the reversal of the epidemic.

Focus: AIDS and the world of work

Declaration of Commitment

By 2005, strengthen the response to HIV/AIDS in the world of work by establishing and implementing prevention and care programmes in public, private and informal work sectors, and take measures to provide a supportive workplace environment for people living with HIV/AIDS (paragraph 49).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

A crucial workplace issue, AIDS holds serious implications for entire national and regional economies (see 'The mounting impact' chapter). In all countries, it poses a threat to livelihoods and to basic rights at work, undermining efforts to guarantee decent, productive work to women and men. Examples of discrimination against HIV-positive persons (or even against people suspected of being seropositive) include actions such as compulsory testing to deny employment, promotion or health insurance. But the world of work is also an ideal site for fighting back against AIDS. It was in recognition of this that the International Labour Organization (ILO) became UNAIDS's eighth Cosponsor in October 2001.

The ILO Code of Practice on HIV/AIDS and the World of Work

In June 2001, the International Labour Organization adopted a Code of Practice on HIV/AIDS and the World of Work. It was finalized by a Meeting of Experts from all regions, made up of representatives from government, and employers' and workers' organizations. The fundamental aim of the Code is to help safeguard conditions of decent work and protect the rights and dignity of workers and all people living with HIV/AIDS.

Based on international standards, the Code is intended to help prevent the spread of the epidemic, lessen its impact on workers and their families, and offer care and support, including social protection. It provides practical guidance to the main stakeholders—governments, employers and workers' organizations—for developing national and workplace HIV/AIDS policies and programmes, while recognizing the contribution that can be made by other parts of civil society.

The Code presents a variety of important preventive actions that can be taken, including information, education and gender-awareness programmes. It deals with the protection of workers' rights, including employment security, gender equality, entitlement to benefits and non-discrimination. Guidance on care and support is also provided.

Workplace programmes

In recent years, more and more employers and trade unions have set up workplace programmes. The most effective programmes involve workers and representatives from management, health services and local communities in the planning and monitoring processes. The recommended components of a workplace AIDS programme include:

- widely communicated and properly implemented equitable HIV/AIDS policies to counter stigmatization and discrimination;
- ongoing formal and informal HIV/AIDS preventive education for all staff, particularly through peer education;
- promotion and distribution of condoms;
- diagnosis, treatment and management of sexually transmitted infections, for employees and their sexual partners; and
- HIV/AIDS voluntary counselling and testing.

Increasingly, and where resources permit, workplace programmes are integrating care and support services for HIV-positive employees and their families.

Adapting programmes to local conditions

It is essential that workplace programmes be adapted to local conditions, and draw on local strengths and opportunities. In Kenya, for instance, all the companies belonging to the Kenya Tea Growers Association have AIDS coordinators and committees, and some offer voluntary counselling and testing onsite. A particular feature of these committees is the appointment of a 'Mama Condom' and 'Baba Condom' at every workplace. These are workers who are already figures of trust among their workmates, whom people can approach for condoms, advice and counselling.

Since few employers or trade unions have in-house expertise on AIDS, collaboration with specialist nongovernmental organizations or health authorities is a good option when setting up workplace AIDS programmes. In the Philippines, the Remedios AIDS Foundation has launched several workplace AIDS programmes within large companies. The first was with the Pilipinas Shell Petroleum Company, which embarked on its HIV/AIDS workplace effort in 1993 as part of an occupational health programme. The Foundation helped it develop corporate policy and provide worker education, of which peer education has become an important part.

Similarly, in Côte d'Ivoire, the Abidjan Centre for Bioclinical Research and Care has provided AIDS prevention training for employers since the late 1990s. While its first clients were governmental institutions (including the army and police), the centre has also worked with large private sector clients, including the telecommunications company Ivoire Telecom.

Most companies have so far decided that they cannot afford antiretroviral therapy, although this may be starting to change, with major reductions in price (see 'Care, treatment and support' chapter). The ILO Code of Practice encourages employers to offer information, counselling and cheaper medication, where possible, and urges governments to regard

Swaziland pushes voluntary counselling and testing in the workplace

In high-prevalence areas or in industries where workers are at particular risk, voluntary counselling and testing are especially important. This has been recognized in Swaziland, where an employers' anti-AIDS coalition has been set up to include not only the larger companies (who generally find it easy to set up HIV/AIDS programmes once they have decided to commit sufficient resources), but also small and medium-size enterprises. The coalition has adopted a slogan to promote voluntary counselling and testing among employees: 'Know your status; the sooner you know it, the sooner we can help.' Nongovernmental organizations have been enlisted to provide voluntary counselling and testing and condom distribution. The Swazi Business Coalition has also developed a one-page policy statement for use by all its members, based on the 10 key principles of the ILO Code of Practice.

care as part of a wider package of social protection. The employers' association Business South Africa reports that increasing numbers of its members are offering drugs for opportunistic infections, as well as 'Healthy Living' programmes that offer information about nutrition, exercise and stress as part of a positive approach to living with HIV.

Reaching outside the formal economy

Workers outside the formal economy are too often ignored in public health efforts. Yet, in many low- and middle-income countries, the informal economy employs far more people than do the public or formal private sectors. These workers typically lack income security, health insurance and other benefits, and seldom enjoy labour law protection. Because of the obstacles to their entry into the formal job market, women often represent the majority of those in informal work, making them even more vulnerable to the economic effects of the epidemic.

Enterprises in the informal economy are usually small and labour-intensive, relying heavily on one or a few operators. When a worker falls sick and eventually dies, it can be very difficult for these small enterprises to stay in business. The precarious nature of informal employment, the lack of social protection and limited access to health services also worsen the impact of the epidemic for individual workers.

Workers in the informal economy are often organized into associations or groups, and the ILO works with several of these. Increasingly, this assistance includes training for AIDS prevention and social protection measures such as health insurance. Work among micro- and small enterprises includes a business awareness programme for sex workers and the 'Start and Improve your Business' programme, which is integrating HIV/AIDS into training in Africa. Other programmes offer technical support for the setting up and strengthening of local micro-insurance schemes in order to increase access to heath care. A pilot project is under way in Burkina Faso to adapt this approach to HIV/AIDS-related needs.

Reaching out to specific groups

Prevention activities often need to be tailored to particular populations. This is also true in the

world of work, where miners, transport workers, migrant labourers and members of uniformed services can be especially vulnerable to HIV/AIDS. The workplace is also an ideal site for outreach work among young people who work for a living. It offers possibilities not only for peer education, but for the creation of positive peer pressure to support behavioural change. The Youth Committee of the Confederation of Mexican Workers, for example, has developed programmes on reproductive health, contraceptive use, and HIV/AIDS, which are aimed at young workers and, in an interesting innovation, also at workers' children.

Innovative workplace programmes in South Africa's goldmines

Workplace programmes on HIV/AIDS tend to be more effective when they take into account the wider realities of workers' lives and communities. The gold-mining districts of South Africa are good examples. These attract thousands of workers, often from poor and remote regions. Most live in hostels, separated from their families. As a result, a thriving sex industry operates around many mines, and high HIV prevalence rates are common. In recent years, mining companies have been working with trade unions, nongovernmental organizations and health authorities to implement prevention programmes for the miners. These have included mass distribution of condoms, medical care and treatment for sexually transmitted infections, and awareness campaigns. However, work and social conditions make it difficult to achieve and sustain reductions in HIV and other sexually transmitted infection levels.

Targeting the male mineworkers is only half the job. Collaboration between Family Health International and the Harmony Gold Mining Company in the Free State Province revealed that the sexual health of miners could also be safeguarded through the provision of care and treatment for sexually transmitted infections and other health services to sex workers and women in surrounding communities. Results were impressive. Prevalence of sexually transmitted infections among women receiving the services dropped by as much as 85% in nine months. At the same time, routine annual examinations among miners revealed 43% lower rates of gonorrhoea or chlamydial infection and 78% fewer genital ulcers. In an effort to tackle the root causes of risky sexual behaviour, trade unions in the mining sector are now negotiating with employers over the provision of accommodation for families.

The programme is being replicated in other South African mining communities by a variety of partners, including Goldfields Ltd, Joel Mine, branches of the National Union of Mineworkers, and local, state and national health structures.

Bolstering multisectoral approaches

National coordinating bodies are also realizing the importance of bolstering the response through the workplace, and of including organizations with specific expertise in this area. Recently, India's National AIDS Control Organization (NACO) set up a technical resource group at the V.V. Giri National Labour Institute to develop research and training resources for workplace AIDS programmes. The Institute's partners in this effort include trade unions, employers' organizations, companies, NGOs undertaking HIV projects in the informal sector (notably with truck drivers and migrant workers), State or district AIDS Control Societies, and ILO.

Playing to company strengths

Over the past five years, the UNAIDS Secretariat and some of its Cosponsors have worked closely with Music Television (MTV) in an effort to reach out to young people and talk to them in their language about issues that interest and involve them. This unique partnership has built on MTV's strengths as a global television network and leading multimedia brand for young people, using their distribution platform and rights-free distribution to other broadcasters to reach some 900 million households worldwide with HIV/AIDS messages. The partnership has included the production of an award-winning series, 'Staying Alive', focussing on the lives of individual young adults living with HIV/AIDS around the world. In addition to being shown on all MTV channels, the series has been aired by many major networks, including China Central Television, South African Broadcasting Corporation, TV Africa, Channel News Asia and RTR Moscow, to name a few. Together with UNAIDS, MTV has encouraged many celebrities to record prevention messages that have been widely distributed and used in public service announcements in many countries. A booklet for MTV presenters and celebrities, entitled *Talking about AIDS*, has also been produced.

International collaboration

In a growing number of countries, companies have formed business coalitions to pool resources and help each other to respond better to the crises in their workplaces and communities. This has also been done at the international level, with the creation of the Global Business Council in 1997. The Council works to help businesses combat AIDS in a wide range of ways, beginning with protecting and supporting workers, harnessing their commercial strengths to make existing AIDS programmes more effective, and demonstrating their leadership and advocacy for AIDS causes. The Council has undertaken a variety of publications, media campaigns and direct advocacy efforts to help keep HIV/AIDS at the top of national and international agendas. With a membership of 32 companies, the Council is supported by its members and also receives funding from the Open Society Institute, the United Nations Foundation, the Bill and Melinda Gates Foundation, and the UNAIDS Secretariat.

In late 2001, the Council published a set of guidelines—*Employees and HIV/AIDS: Action for Business Leaders*—in which it called on companies to implement comprehensive prevention, voluntary counselling and testing, and care programmes. Using concrete examples of programmes from Africa, Asia and Latin America, the Guide is targeted at chief executives and senior company directors, demonstrating that employee HIV programmes make strong business sense and are cost-effective and feasible.

Trade unions are also working on global responses through their own international structures. The International Transport Workers' Federation (ITF) has become involved in individual projects. Following a detailed study, the ITF developed a project for truck drivers in Uganda, mainly focused on prevention. It includes innovative features such as negotiating with government authorities to reduce formalities at borders, thereby shortening the waiting times for drivers and their crews, and thus reducing their opportunity to purchase

sex while at the stop. The International Confederation of Free Trade Unions, meanwhile, mobilizes national trade union centres against AIDS through its regional offices, while other initiatives are taking place within specific industries. One such example can be seen in the work of Education International—the international union federation for teachers and workers in education. The secretariat has been active on AIDS issues since 1993, building up an alliance with WHO, UNESCO, the UNAIDS Secretariat and other partners. Reacting to requests for materials from both unions and governments, the secretariat consulted WHO and teachers in eight countries to develop its *Training and Resource Manual on School Health and HIV/AIDS Prevention.*

Focus: AIDS and mobile populations

Declaration of Commitment

By 2005, develop and begin to implement national, regional and international strategies that facilitate access to HIV/AIDS prevention programmes for migrants and mobile workers, including the provision of information on health and social services (paragraph 50).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

Migration and mobility play important roles in the HIV/AIDS epidemic. But the relationship is complex. Not all migrants or people on the move face special risks of infection. Still, the links between mobility and AIDS are evident in most parts of the world, as these examples show:

- **Migrant workers:** Of the Filipinos reported to be living with HIV/AIDS, 28% are workers who have returned home after working in other countries. About 41% of HIV-positive Bangladeshis have been migrant workers.
- **Mobile professions:** Research among truck drivers at five South African truck stops revealed an overall prevalence of 56%—well above the national adult prevalence rate.
- **Migrant and trafficked sex workers:** Research in the Terai area of Nepal revealed that the 17% of sex workers who had worked in India accounted for three-quarters of all HIV cases. About 30% reported that they had been coerced; testing revealed that these women were three times more likely to be HIV-infected than other women.
- **Partners of migrant workers:** The beginning of the HIV epidemic in rural Mexico can be traced to the return of agricultural labourers who had been working in the United States of America.

Understanding migration

Never before in human history have more people been on the move. Recent estimates suggest that some 150 million migrants (people who take up residence or who remain for an extended stay in a foreign country) currently live outside their country of citizenship. One-in-ten of these are liable to be refugees and asylum-seekers. Even greater numbers of people move within their countries each year. In fact, economic migration from rural to urban areas is probably the largest single category of modern migration.

The International Organization for Migration (IOM) has devised a useful framework for research and HIV/AIDS programming whereby migration is characterized as a process with four stages. Effective HIV/AIDS responses must address each stage:

- **Source:** where people come from, why they leave, and what relationships they maintain at home while they are away.
- **Transit:** the places people pass through, how they travel and their behaviour while they travel.
- **Destination:** where people go, the attitudes they encounter, and their new living and working conditions.
- **Return:** the changes that have occurred in people's lives, and the conditions they find upon their return.

People move for a variety of reasons—some voluntary, some not. Economic migration is largely (but not entirely) a question of supply and demand. Prosperous countries, notably in North America, Western Europe and the Gulf States, attract people looking for work; others, in poorer regions, are highly dependent on the income earned by citizens who work in other countries. The Philippines, for instance, has about 8% of its citizens working overseas (out of a total population of 77.1 million), the majority of them women.

Tragically, a significant proportion of today's population movement is involuntary. This includes refugees and internally displaced people pushed from their homes by conflict or disaster. The Office of the United Nations High Commissioner for Refugees has estimated that there are currently some 40 million people worldwide who have been driven from their homes by emergencies caused by natural disasters such as earthquakes, drought or floods, or else by war and civil strife, and who are living as refugees in foreign lands or as displaced persons within their own countries. Some have remained in these precarious situations for 20 years or more, and the camps to which they retreated have become more or less permanent settlements.

Also involuntarily on the move are people who are trafficked—as many as 1–2 million annually, according to some estimates—mostly for prostitution and forced labour. Of these, the overwhelming majority are women and children. Such trafficking is thought to be one of the biggest sources of profits for organized crime, following drugs and firearms.

Mobility and vulnerability

Vulnerability is often related to a particular stage of the migration process. For example, some migrants are most vulnerable at their destination, as is often the case with men who work far from home in men-only camps or barracks. For others, the greatest risk occurs in transit, as with women who have to trade sex in order to survive or complete their journeys.

Also vulnerable are the partners of those who become infected while away, especially married women. Their vulnerability is worsened when they lack the right or ability to deny their partner sex or insist he use a condom, even if they suspect he may have had unsafe sex while away.

Nevertheless, it would be incorrect to assume that migrants generally bring AIDS with them. Comparison of forced migrations in Africa reveals that, in some cases, such as Somali

refugees in Ethiopia, prevalence among the migrants is less than that of the host population. The same can be true of labour migration. In India, the more industrialized states of Maharashtra, Gujarat and Andhra Pradesh attract both male and female workers from all over the country, but particularly from those states with lower income levels. Some of these lower-income states have lower levels of HIV infection than the destination states. The fact that migrating men generally leave their wives and families behind increases the likelihood that they will visit sex workers while away from home—a risk factor for both them and their families when they return home.

Action research needed

Efforts to tackle the link between migration and AIDS are complicated by the fact that few countries collect information or do research about the HIV-related needs of migrants. This is true even in countries that have mounted generally successful AIDS responses. For instance, neither Uganda nor Thailand has collected data on HIV among their substantial forced-migrant populations. Yet Uganda hosts about 185 000 refugees, Thailand about 188 000, and both have large numbers of undocumented migrants. Most of what is known about these populations is the result of research by nongovernmental organizations and international agencies.

An important part of a response, then, even before prevention or care programming is planned, is the collection of information. The methodologies for rapid situation assessment already exist. An example is a study carried out by CARE, Family Health International, the Thailand Business Coalition on AIDS, and World Vision Thailand, which looked at the maritime industry in Thailand's Ranong Port. After identifying risk conditions for HIV and for substance use in the area, the researchers were able to pinpoint opportunities to tailor interventions for the various fishing fleets, routes and type of vessel.

Prevention begins at home... but can not stop there

One of the basic rules of HIV prevention is that it is best to start early. This means reaching people before they depart for work overseas or away from home.

The Philippines provides a good example of what can be done. Knowledge levels about HIV are now relatively high among Filipino overseas workers, compared to those of other countries. This is partly due to national programmes (such as the Pre-Departure Orientation Seminars) that include sexually transmitted infections and AIDS in their curricula. A recent study indicated that Filipina maids working in Malaysia were well aware of the risk of AIDS and how to prevent it. In contrast, the study found that, among Bangladeshi women working in Malaysia, the level of AIDS-related awareness was low.

Such findings have led CARAM Asia (Coordination of Action Research on AIDS and Mobility), a partnership of seven nongovernmental organizations in the region, to link programmes in source and destination countries. CARAM Bangladesh now provides pre-departure training for women going to Malaysia, with returned migrants helping to provide the training. Upon arrival, CARAM Malaysia offers them support in protecting their reproductive health. A similar arrangement exists between CARAM Cambodia and CARAM Viet Nam.

Prevention along migration routes in West Africa

Originally launched along the heavily-travelled corridor between Abidjan in Côte d'Ivoire, and Ouagadougou in Burkina Faso, USAID's programme, AIDS Prevention on the Major Migratory Routes of West Africa (*Prévention du SIDA sur les Axes Migratoires de l'Afrique de l'Ouest*), now spans four countries, including those with the highest rates of HIV prevalence in the region. Strategies employed by the project include social marketing, mass media campaigns, and the use of peer education among the target groups, including truck drivers, sex workers and seasonal migrant workers in plantations. Evaluations suggest that safer sexual practices have increased since the beginning of the interventions in 1998. A comparison of data from studies conducted in Burkina Faso in 1997 and 2000 revealed that reported condom use among truckers during their last sexual act with an occasional partner had increased from 69% to 90%.

Prevention at destination

In the case of international migration, destination countries sometimes assume that migrants are particularly hard to reach with HIV/AIDS programming. Reasons cited generally include language barriers, cultural differences, suspicion of government authorities (including health services), and concerns about legal status. However, it seems more useful to recognize that some migrant communities have to be reached in different ways.

As with other vulnerable groups, health authorities have to carefully balance more focused programming with programming for the wider population. One non-stigmatizing approach is to focus programming on situations and geographical zones where substantial numbers of migrants live, work or socialize, rather than targeting specific individuals or groups. For example, programmes aimed not at migrant agricultural workers but at the communities that surround farms have the potential not only to reach migrant farm workers but also sex workers, traders and sales people, and the local men and women who live and work in the area. The South African experience with communities surrounding gold mines is instructive (see 'Focus: AIDS and the world of work').

A good example of partnership is *Ikambere* (the *'welcoming house'* in Kinyarwanda, the Rwandan language) in Paris. Since 1997, Ikambere has provided a locale where HIV-positive women from sub-Saharan Africa (who also run the initiative) can offer mutual support, exchange information, and work together on items they can sell. Ikambere also cooperates with hospitals and outpatient clinics where people from their communities receive AIDS treatment, helping these health facilities extend their outreach.

Care and support

Although authorities in destination countries may initially baulk at the prospect of providing care for foreign nationals, migrants have the same rights to care as those of other citizens. AIDS thrives on exclusion; in contrast, including vulnerable people in all available responses is a way of increasing society's total resistance to the epidemic. As with other populations, voluntary counselling and testing represent an excellent entry point to care, provided they are offered in the migrants' language and with iron-clad confidentiality.

Provision of care and support to migrant communities and workers, such as prevention activities, requires specific training for host-country officials. This holds true for health-care staff, as well as those in social services and immigration authorities, all of whom need to be sensitized to migrants' perceptions of HIV/AIDS, their legal problems and other concerns.

Efforts by international agencies to provide reproductive health services to refugees and internally displaced persons have grown considerably in recent years. The United Nations High Commissioner for Refugees spearheads efforts to provide reproductive health care for refugees. The United Nations Population Fund has also been active, particularly in addressing the health needs of adolescents.

Policy and legal environments

Some laws and regulations governing people on the move can have disastrous effects on public health. People who enter countries as immigrants or workers are often subject to mandatory HIV testing, despite the fact that this is not an effective form of prevention. Regulations aimed at barring HIV-positive people from entry remain in place in several countries, although it has been found that such restrictions have no public health justification (see 'Entry and residence restrictions based on HIV status' box).

Some migrant and immigrant groups are mobilizing effectively around HIV/AIDS issues. In the United Kingdom, the African Policy Network lobbies government officials to change legislation and policies that discriminate against HIV-positive asylum-seekers. The Network performs its lobbying work in collaboration with other organizations such as the Terrence Higgins Trust, the National AIDS Trust and the All Parliamentary Group on AIDS.

HIV and migration in Europe: access and care to the fore

Epidemiological data from Europe show that the proportion of people newly diagnosed with AIDS who are non-national migrants is increasing. In France, for example, where the numbers of new AIDS cases have been decreasing since 1996, rates have been decreasing more slowly among people who live in France but who are citizens of other countries. One-quarter of the non-nationals diagnosed as having AIDS are women, whereas women represent only 16% of the AIDS cases among French nationals. The situation is similar in Switzerland, where data on newly diagnosed HIV infections show that women from sub-Saharan Africa are particularly vulnerable.

Migrants have not benefited to the same extent as nationals from access to antiretroviral therapy and other care. Evidence from Belgium, France and the United Kingdom shows that migrant populations tend to seek both HIV testing and care later than the rest of the population. In France, a survey has found that women of North-African origin received less HIV counselling when they went to a prenatal clinic (despite the fact that they were found to be less knowledgeable about HIV than the general population), and therefore had a greater need for information. The survey also found that immigrant women were also more likely to be tested for HIV without their permission.

Entry and residence restrictions based on HIV status

HIV-related restrictions on entry and residence should be repealed or modified, based on guidance provided by the *International Guidelines on HIV/AIDS and Human Rights*, issued in 1998 by the Office of the United Nations High Commissioner for Human Rights and the UNAIDS Secretariat. The guidelines state that, "There is no public health rationale for restricting liberty of movement or choice of residence on the grounds of HIV status [...] Where States prohibit people living with HIV/AIDS from longer-term residence due to concerns about economic costs, States should not single out HIV/AIDS, as opposed to comparable conditions, for such treatment and should establish that such costs would indeed be incurred in the case of the individual alien seeking residence. In considering an entry application, humanitarian concerns, such as family reunification and the need for asylum, should outweigh economic considerations".

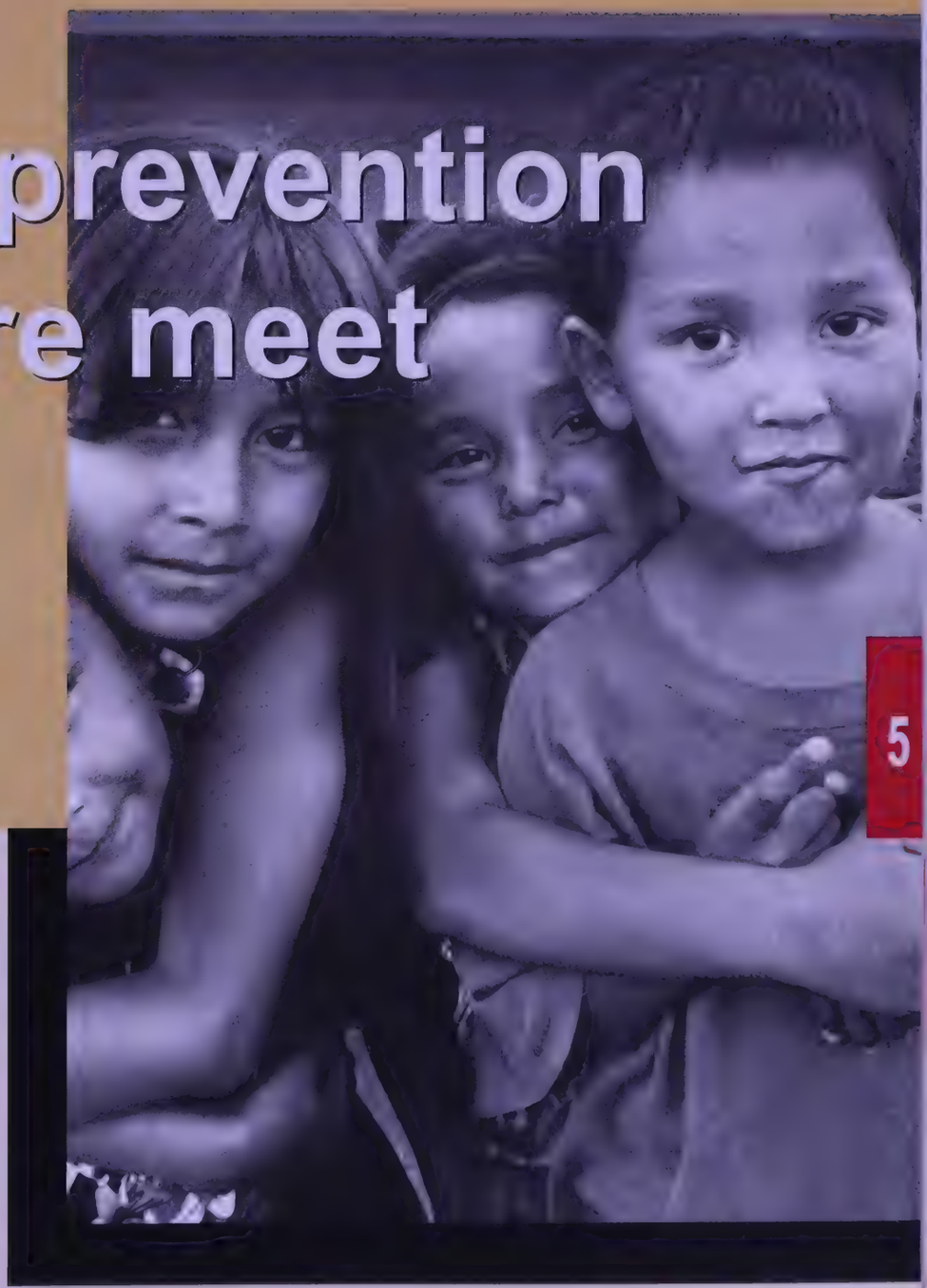
Regional responses: spreading out

Given that HIV/AIDS responses for migrant populations must address all stages of the migration process—origin, transit, destination and return—some programming for migrant populations must extend beyond borders. Major regional AIDS and migration initiatives include the following:

- UNAIDS' Inter-Country Team for West and Central Africa has a special focus on mobility, with five partially overlapping programmes: West African countries, Gulf of Guinea coastal countries, Lake Chad Basin, Congo River Basin, and the Great Lakes Initiative on AIDS.
- The HIV and Migration Project in Central America and Mexico, organized by Mexico's National Institute of Public Health with a variety of nongovernmental organizations, governments and other institutions, works in 11 transit stations in Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama.
- The European project 'AIDS & Mobility' has national focal points in 14 countries, and fosters cooperation between community-based, governmental and nongovernmental organizations.
- The Association of Southeast Asian Nations (ASEAN) is working towards a five-year workplan to tackle HIV among mobile populations. The regional plan will comprise two components, one of which will concentrate on seafarers and truck drivers (and will include the countries of the Greater Mekong area), while the other will focus on preventing HIV/AIDS among migrant workers.

All these initiatives use a variety of approaches including ethnographic research, mapping, surveys and other techniques. Focus areas include understanding the dynamics of specific population movements between countries or regions, the effects of cross-border movements on communities of origin and destination, factors that promote vulnerability and resilience to HIV, and migration policies and health policies in areas of origin and destination. All place a strong emphasis on linking, networking and knowledge-sharing.

Where prevention and care meet



5

Where prevention and care meet:

voluntary counselling and testing, and preventing mother-to-child transmission

Prevention and care are inextricable elements of an effective response. One without the other undermines the chances of success but, together, they create a powerful synergy. Voluntary counselling and testing (VCT) and the prevention of mother-to-child transmission (PMTCT) are examples of how effective critical HIV/AIDS interventions can be when integrated.

Voluntary counselling and testing

Voluntary HIV counselling and testing are key components of prevention and care programmes. In prevention, VCT helps people learn about how HIV is transmitted, practise safer sex, get a HIV test and, depending on the result, take steps to avoid becoming infected or infecting others. Within care programmes, HIV test results and follow-up counselling mean people can be directed, towards relevant care and support services, such as treatment for tuberculosis and sexually transmitted infections, family planning and, where indicated, treatment for opportunistic infections, treatment with antiretrovirals and prevention of mother-to-child transmission. In addition, wider access to VCT may lead to greater openness about HIV/AIDS and less stigma and discrimination.

Central to prevention

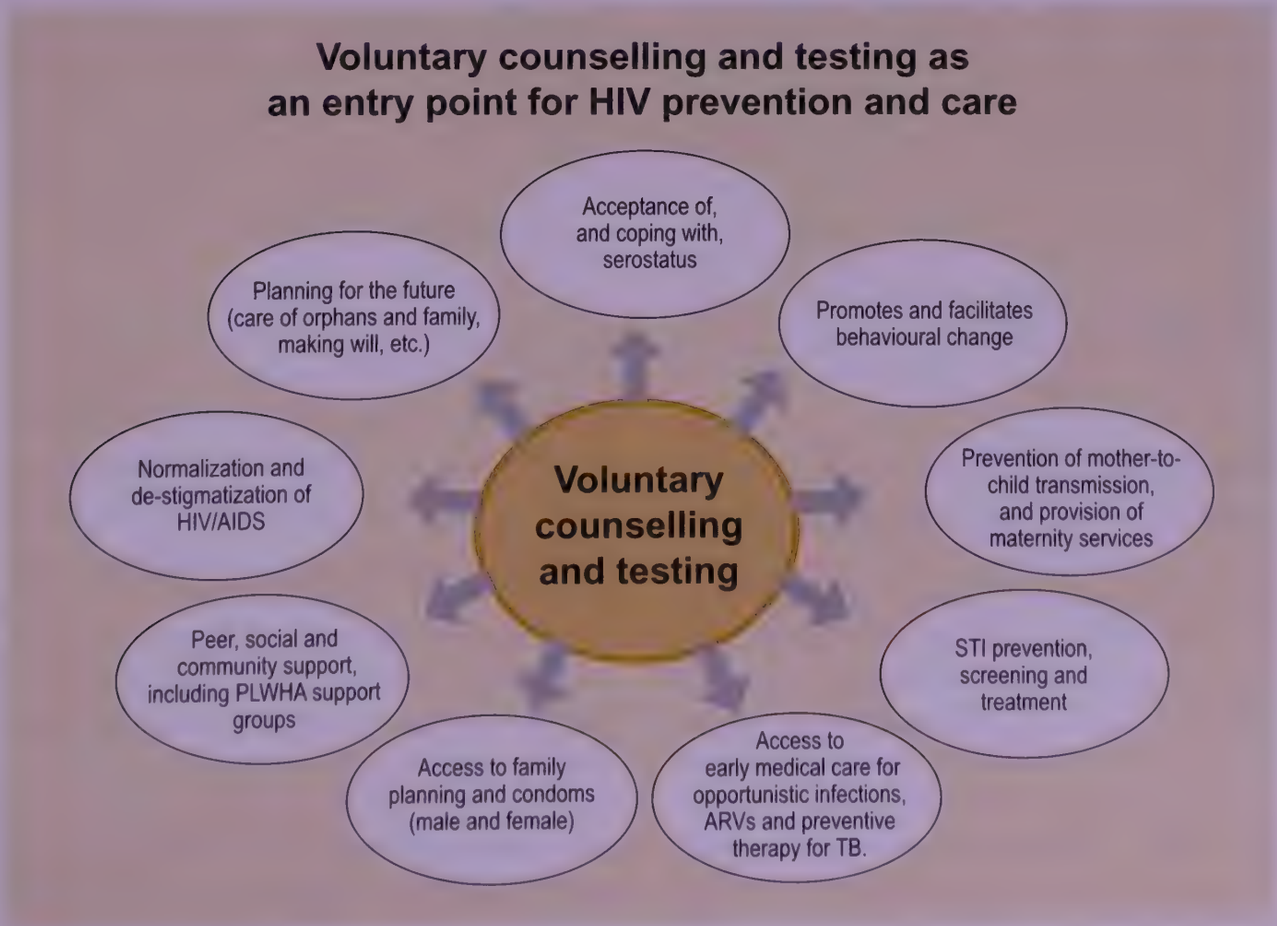
VCT is a proven preventive strategy that should become an integral part of HIV prevention programmes in all countries. For example, in a recent randomized trial of individuals and couples in Africa and the Caribbean, a total of 3120 individuals and 586 couples in Kenya, Trinidad and Tobago, and the United Republic of Tanzania were randomly assigned to either a VCT group or a basic health education group, with the option of VCT provided as follow-up a year later. The VCT group self-reported a 35% reduction in unprotected sexual intercourse with both steady and casual partners during the year following the initial testing and counselling, compared with a 13% reduction in the group that received basic health information. Individuals in the comparison group who accepted counselling and testing at the first follow-up visit self-reported a drop in the level of unprotected intercourse, equal to that of the initial VCT group after one year.

It should be emphasized that access to VCT is recognized as a critical strategy in responding to HIV/AIDS in low- and middle-income countries, as well as in high-income countries with advanced health systems. In the United States of America, where an estimated 25% of

HIV-positive people do not know their HIV status, the Centers for Disease Control and Prevention has made VCT a cornerstone of its 2001–2005 strategic plan for HIV prevention. The plan aims to increase the number of providers who routinely provide VCT in health-care settings (for example, sexually transmitted infection clinics, substance-use treatment programmes, family planning clinics, emergency rooms, community health centres), as well as in non-clinical venues (e.g., social venues, public assistance programmes, street outreach).

In view of the number and complexity of issues relating to HIV testing in UN peacekeeping operations, and in response to concerns expressed by members of the UN Security Council, the UNAIDS Secretariat, in close consultation with the UN Department of Peacekeeping Operations, initiated a comprehensive review of United Nations policy in this area. The UNAIDS Expert Panel on HIV Testing in UN Peacekeeping Operations was established to assist in this effort. The panel unanimously recommended voluntary HIV counselling and testing as the most effective means of preventing the transmission of HIV, including among peacekeepers, host populations, and the spouses and partners of peacekeepers. The panel stressed that VCT should be provided to peacekeeping personnel within a comprehensive package of integrated HIV prevention and care programmes. The panel also noted that VCT has been shown to be

Figure 28



Source: UNAIDS (2002)

more effective than mandatory HIV testing in promoting safe sexual behaviour and reducing other risks involved in HIV transmission.

The main entry point to care services

As illustrated in Figure 28, VCT is the main entry point for care and support services. Furthermore, with plans for expanded antiretroviral drug access (both for treatment and prevention of mother-to-child transmission) in many countries, there will be an increasing need for hospitals and community care programmes to provide VCT. This stems from the simple fact that antiretrovirals are of little use unless people know their serostatus. In addition, ongoing counselling will be necessary to ensure that people taking antiretroviral therapy are supported, adhere to regimens and cope with possible adverse effects. Family and couple counselling will be particularly beneficial both for adherence and support in the context of preventing mother-to-child transmission. It is all the more important, therefore, to ensure that testing is supported by effective counselling with adequately trained counsellors, in user-friendly locales, and with guaranteed confidentiality.

Programme expansion is necessary and possible

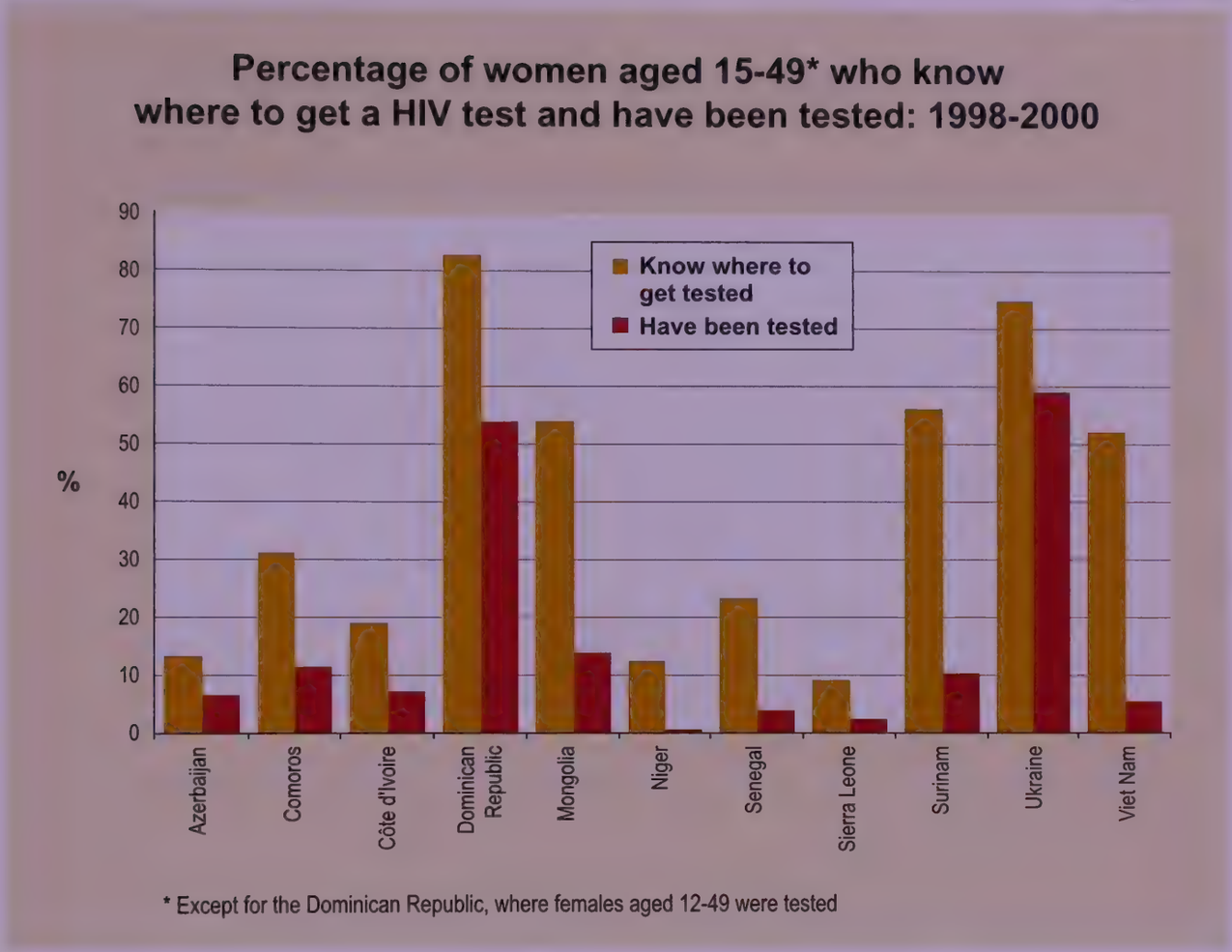
While there are many examples of high-quality VCT services in low- and middle-income countries, most are concentrated in major urban areas, on a small scale. This means VCT is currently unavailable for the vast majority of people who could benefit from it. Expanding VCT services is therefore a cornerstone of the UN System Strategic Plan for HIV/AIDS 2001–2005, and the UNGASS goals of reducing HIV prevalence among young people and infants by 2005.

In addition to expanding availability of VCT, people need to be encouraged to use those services where they do exist. As with other HIV prevention and care interventions, people living with HIV/AIDS have an important role to play in the design and development of VCT services, wherever they are implemented. As Figure 29 shows, only a tiny percentage of women in several African countries have been tested, despite the fact that a considerably larger percentage knew where they could go.

Rapid HIV tests are now available and can be carried out by staff with no formal laboratory training. This removes one obstacle to expanding services in rural areas and in small sites where laboratory facilities are not available. Many countries are now gradually expanding VCT as part of public health-care systems. However, external quality control and strong supervision to ensure high quality of testing remain essential.

An example of successful expansion is Uganda's AIDS Information Centre (AIC), which grew from a single site in 1990 to 51 in 2001, and which has tested more than half a million people. Since 1997, it has offered rapid testing with same-day results, along with related services such as syndromic management of sexually transmitted infections, tuberculosis preventive therapy, family planning, and referrals to and from other AIDS service organizations. Costs are subsidized and, for at least one day per week, VCT is free. The AIC has shown that couple testing can be implemented if approached carefully and consistently. The proportion of people requesting VCT as couples from AIC has

Figure 29



Source: UNICEF (2000) Multi-Indicator Cluster Survey 2

increased from 8% of all clients in 1992 to nearly a third in 2001, with about a quarter of these couples requesting HIV testing prior to marriage. Overall, male and female attendance rates are similar.

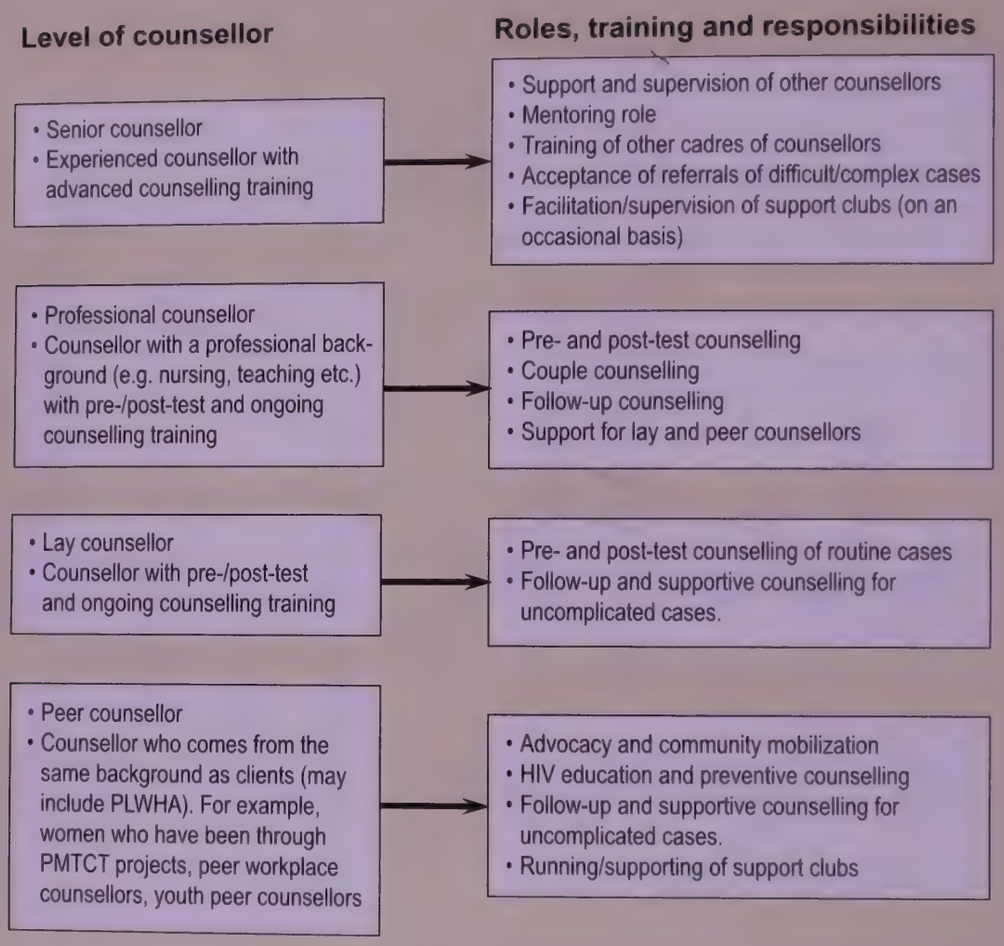
Strategies for expanding services

Finding enough trained counsellors can be a major challenge to the expansion of VCT services, but innovative approaches may help. In programmes for preventing mother-to-child transmission in Botswana, for example, clinic-based group counselling, video sessions and use of 'lay' counsellors and community-based counselling services are being used as a way to reduce the length of the individual pre-test counselling sessions.

Staffing requirements should not be underestimated when expanding VCT services. The background, training, roles and responsibilities of people carrying out pre- and post-test counselling vary widely. In many VCT projects, most counsellors are nurses or social workers who have had additional HIV counselling training. However, due to a shortage of nurses and social workers, counsellors also need to be drawn from other walks of life. An example of a model for different roles, training and responsibilities is shown in Figure 30. It is useful to have senior counsellors that can

Figure 30

Roles, training and responsibilities of VCT counsellors



Source: UNAIDS (2001) Report from WHO/UNAIDS Technical Consultation on Voluntary HIV Counselling and Testing

provide support and supervision to the other counsellors and accept referrals of more complex cases. Ongoing support and supervision of counsellors, whatever their background, are needed if high-quality counselling is to be provided and burnout and a high turnover of counsellors are to be avoided.

One useful strategy is to link HIV-focused services with related services, notably those dealing with antenatal care, family planning, sexually transmitted infections (see 'Prevention' chapter) and tuberculosis. For example, effective tuberculosis treatment can dramatically enhance both quality of life and longevity, as well as help control the disease within the wider community. The World Health Organization's ProTEST initiative (which links HIV and tuberculosis programmes and general health services) promotes HIV counselling and testing as a response to tuberculosis in settings where HIV prevalence is high. Several successful

ProTEST sites have been set up in sub-Saharan Africa and others are being developed in Asia. Evaluation indicates that the approach is very effective. The Central District ProTEST in South Africa, for example, has found a 95% acceptability of HIV testing following pre-test counselling among all persons attending.

One of the most innovative recent approaches to delivering VCT services is through social marketing, in which 'social products' (notably condoms) are promoted. In Zimbabwe, for example, the New Start programme uses franchising to provide VCT services, and is creating a national VCT network with a common logo and name, which is promoted through media and information campaigns. The National AIDS Commission launched the New Start programme in 1998 with Population Services International (PSI) and USAID. High-quality counselling and testing services are offered at the programme's centres, with same-day results available at most of them. All sites use a standardized counselling and testing protocol developed in accordance with Zimbabwean Health Ministry guidelines. Free services are offered for clients unable to pay the standard fees.

Targeting VCT

Generalized VCT services are important, but cannot effectively reach all populations who need them. Targeted programmes—either using separate facilities or via communications campaigns—are necessary for specific groups, such as young people and couples, and for vulnerable populations, such as injecting drug users and sex workers.

VCT directed towards young people is being implemented in many countries (see 'VCT for young people: Kara Counselling and Training Trust' box). A recent study from Kenya and Uganda showed that young people valued the counselling aspect of VCT. Most of the young people tested disclosed their test results to someone and intended to practise safer sex. The study also found that the vast majority of untested young people wanted to take a HIV test. However, young people's reasons for attending VCT and their needs following VCT can be different from those of other age groups. Training is needed to enable counsellors to communicate with young people and grasp their particular concerns associated with HIV infection and prevention. For young people under the age of majority, consent to testing and disclosure of HIV tests are issues that need to be addressed in the delivery of VCT services.

Care and support for sex workers is another important approach in HIV prevention (see 'Prevention' chapter). In Kinshasa, Democratic Republic of Congo, a programme offering VCT, screening and treatment of sexually transmitted infections, group discussions about prevention, and free condoms for sex workers has increased condom use and reduced the incidence of HIV and other sexually transmitted infections among sex workers. Other programmes have found it effective to use peer educators/counsellors to provide outreach counselling to other sex workers.

VCT can provide the opportunity for injecting drug users to know their HIV status and receive counselling about safe injecting practices and safer sex. In a study of 5644 attendees at a needle-exchange and detoxification centre in California, the factor most closely associated with not sharing syringes was use of VCT services.

VCT for young people: Kara Counselling and Training Trust, Zambia

Kara Counselling and Training Trust is a Zambian nongovernmental organization that started as a drop-in centre providing HIV information and counselling to the general public in 1989. It was also the basis for the first support group for people living with HIV in Zambia, which still plays an important role in HIV advocacy and education, and in challenging stigma and denial. In 1992, confidential VCT services were introduced at one of the Trust's facilities. Rapid testing with same-day results was introduced in 1996. The majority of the VCT clients are young people aged 18–29.

The Trust works to increase young people's use of VCT services, including post-test support services. To achieve this, the organization provides:

- youth-oriented outreach activities to educate and mobilize young people;
- access to partner and pre-marital counselling and testing for young couples;
- youth-friendly VCT services;
- ongoing counselling and youth-friendly post-test clubs; and
- operational research about VCT and young people.

The outreach activities often help young people decide to use VCT services. They alert people to the existence of the services, explain the process, and involve them in discussions about benefits and drawbacks. The Trust takes two approaches to community outreach by running an outreach programme with HIV-positive young people (targeted more at groups), as well as a community mobilization programme (targeted at individuals).

Mother-to-child transmission (MTCT)

An estimated 200 million women around the world become pregnant each year, of whom about 2.5 million are HIV-positive. One of the biggest challenges is that of enabling the nearly 99% of pregnant women who have not acquired the virus to remain HIV-negative. That challenge is integrally linked to the wide-ranging efforts to prevent HIV transmission to mothers and their children.

The internationally agreed approach to preventing mother-to-child transmission includes a number of strategies: (1) primary prevention of HIV among prospective parents; (2) prevention of unwanted pregnancies among HIV-positive women; and (3) prevention of transmission of HIV from mother to child. The care and treatment of HIV-positive mothers in the context of mother-to-child transmission are now also recognized as an ethical imperative, and steps are being taken to provide such care alongside prevention interventions.

Preventing mother-to-child transmission and providing treatment and care to mothers and their infants can best be achieved by greatly increasing the access of women of childbearing age and their partners to HIV prevention

Declaration of Commitment

By 2005, reduce the proportion of infants infected with HIV by 20%, and by 50% by 2010, by ensuring that 80% of pregnant women accessing antenatal care have information, counselling and other HIV-prevention services available to them, increasing the availability of, and providing access for, HIV-infected women and babies to effective treatment to reduce mother-to-child transmission of HIV [...] (paragraph 54).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

services, reproductive health and family planning services, and antenatal/maternity clinics. Such services should ensure that women can choose whether or not to know their HIV status; to control their fertility; to terminate a pregnancy, where this is safe and legal; and to take advantage of MTCT drugs and other interventions if HIV-positive and having a child.

Cheaper and more easily administered antiretroviral drugs are available for use in resource-poor settings. These treatments have the potential of cutting HIV transmission by up to 50%. It is critical that provision of these drugs be expanded, given the fact that, in 2001 alone, an estimated 800 000 children were newly infected with HIV—almost all through mother-to-child transmission. Expansion should be possible, given the successes of small-scale projects and the increased commitment—both internationally and from governments in low- and middle-income countries—to MTCT interventions.

Reducing the risk of transmitting HIV to infants

Preventing HIV transmission from a HIV-positive woman to her child is feasible and relatively inexpensive. Once a mother knows she is HIV-positive, intervention options include the use of preventive antiretrovirals, elective caesarean section, and replacement feeding. Another low-cost approach, which benefits all pregnant women and may reduce mother-to-child transmission regardless of whether HIV status is known, is the avoidance of unnecessary invasive procedures during labour and delivery.

Short-course zidovudine is widely used in MTCT pilot projects in low- and middle-income countries and better acceptance rates have been achieved in recent years than when the programmes first started. Recently, many programmes have been choosing to use nevirapine based on the results of the HIVNet 012 study in Uganda. Given as a single dose to the mother at delivery and a dose to the child within 72 hours of birth, nevirapine is similar in effectiveness to short-course zidovudine, offering up to 50% risk reduction among breast-feeding populations. Short-term safety and tolerance of singe-dose nevirapine have been demonstrated in clinical trials. Research has shown no significant differences in serious toxicity or other effects between nevirapine and short-course regimens of zidovudine or zidovudine/lamivudine.

Breastfeeding and mother-to-child transmission

In the absence of any intervention, about one-third of HIV transmissions from mother to child are attributable to breastfeeding. It is also increasingly clear that breastfeeding undermines the protective effect of antiretroviral treatment to prevent mother-to-child transmission of HIV. The UN Interagency Task Team on Mother-to-Child Transmission of HIV recommends that when replacement feeding is acceptable, feasible, affordable, sustainable and safe, HIV-infected mothers should avoid all breastfeeding. Otherwise, exclusive breastfeeding is recommended during the newborn's first months of life.

Most countries with a national policy on HIV and infant feeding follow the UN guidelines, but adapt them according to local resources and conditions. The best policies are those that offer choices to mothers. In Botswana and Côte d'Ivoire, as well as in a number of pilot sites in South Africa, more than 70% of women choose replacement feeding when counselled on the various infant-feeding options. The women are provided with free formula. In Brazil and Thailand, all HIV-positive women are advised not to breastfeed and are offered free formula.

Unfortunately, replacement feeding is not a viable option in many low- and middle-income countries. The vast majority of women breastfeed their babies, either by choice or because they have no safe, acceptable or feasible alternative. Even when breast-milk substitutes are provided free of charge, serious obstacles may be present, such as lack of safe water and sanitary conditions, confusion as to appropriate use, and stigma from family or community (due to the association of formula feeding with HIV infection).

The nevirapine regimen requires minimal monitoring and is particularly beneficial to women who present late in pregnancy or who have taken less-than-adequate prenatal doses of zidovudine. Drug resistance has been reported among some women exposed to nevirapine and other short-course antiretroviral regimens used for MTCT risk reduction. The implications of such resistance are still uncertain and need to be considered in the context of increasing access to antiretroviral treatment for patients in developing countries. A WHO Technical Consultation in October 2000 concluded that the benefit of decreasing MTCT with these antiretroviral drug prophylaxis regimens greatly outweighed concerns related to development of drug resistance.

VCT within MTCT programming

VCT is a critical entry point to MTCT prevention programmes, but not enough programmes have taken this on board. A recent UNICEF report illustrates this, drawing on data from nine African countries (Botswana, Burundi, Côte d'Ivoire, Kenya, Rwanda, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe). In settings where prevention of MTCT has been integrated, an average of 62% of women attending care receive counselling, and about 70% of them accept testing. However, uptake of VCT varied greatly between countries and sites, ranging from 22% counselled and 65% tested in Zambia, to 82% tested in Rwanda and 100% counselled.

Many factors affect uptake. Some, such as staff training and supervision, are internal programming issues; others are societal and include stigma, minimal male involvement, partner violence, and rejection of HIV-positive women. Since men can play important roles in increasing acceptance and uptake, innovative ways must be sought to encourage their greater participation in VCT and in prevention of MTCT. A recent study of VCT in five settings indicated that encouraging more men to accept a HIV test is an important first step in getting them to take more responsibility for preventing mother-to-child transmission, including using condoms during the pregnancy and being supportive of HIV-positive women's infant-feeding choices. Finally, it is clear that where the emotional and health-care needs of mothers are addressed, uptake is increased.

Caring for HIV-positive mothers: 'MTCT-Plus'

Besides deterring women from participating in MTCT programmes, lack of care for HIV-positive mothers in the context of preventing transmission to their infants raises serious ethical concerns. Leaders of philanthropic foundations from around the world met in December 2001 with UN Secretary-General Kofi Annan and announced large-scale funding for a five-year demonstration project in Africa, Asia and Latin America. Dubbed 'MTCT-Plus', the initiative will seek to expand services for HIV-positive women, including basic care for prevention and/or treatment of opportunistic infections and, when indicated, treatment with antiretrovirals. The hope is that, eventually, MTCT-Plus will include the HIV-positive family members of participating mothers and children. Information campaigns aimed at raising international awareness are to form part of the initiative, along with the purchase and distribution of drugs to prevent MTCT, advocacy for the elimination of laws and regulations that delay access to drugs, and education and training programmes. MTCT-Plus will begin as an extension of existing MTCT prevention programmes and will initially be concentrated in sub-Saharan Africa.

Expanding coverage of mother-to-child transmission programmes

Despite the complexity and logistical challenges of MTCT interventions, there is no longer any technical justification for restricting them to pilot or research settings. However, such interventions are only beginning to be incorporated into routine antenatal and maternity care settings in many low- and middle-income countries. Thailand, Brazil and Botswana (see 'Botswana national MTCT programme' box) are leaders in this respect, having made MTCT interventions available throughout the country. Countries that have started to expand coverage beyond pilot sites include Côte d'Ivoire, Honduras, India, Kenya, Myanmar, Rwanda, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe.

In South Africa, by April 2002, the provinces of the Western Cape and KwaZulu-Natal were expanding province-wide MTCT-prevention programmes. The historic legal case in South Africa brought by the Treatment Action Campaign and others is expected to result in similar expanded programmes commencing in other provinces. And although limited to two sites per province, South Africa's current national pilot programme for prevention of MTCT is perhaps the largest in sub-Saharan

Africa. Each month, the programme provides services (including treatment with nevirapine) to approximately 6090 women registered in antenatal clinics, which represents about 9% of the total countrywide. When these are added to those in a number of operational research sites and the provincial programmes, the national total for women accessing MTCT prevention is probably 12–15%. The rate at which women agree to be tested for HIV is currently 51% in the national sites, or about 3133 pregnant women being tested per month. However, the testing rate in the national sites varies greatly between provinces and sites, ranging from 17% to 90%.

In most sites in sub-Saharan Africa, the overall percentage of women reached and treated is currently very low—less than 20%. Among the few exceptions are Rwanda's Kichikura site and the sites supported by the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF). The Foundation's Call to Action Project, initiated in September of 1999, has sites in 70 locations in 11 African countries and Thailand.) Overall uptake in Rwanda and in the EGPAF-supported sites in Africa is estimated to be 40%. In contrast, the overall percentage of women reached and treated in Brazil and Thailand is over 70%.

The UN and organizations such as EGPAF, *Médecins Sans Frontières*, the US Centers for Disease Control and Prevention, Family Health International and Population Council/Horizons are currently supporting the development and expansion of a large number of projects in low- and middle-income countries. In 2001, working through UNICEF, the UN Interagency Task Team expanded its support from 11 to 16 countries, with some 79 implementation sites. The World Bank now includes the financing of national prevention of MTCT programmes in all new Multi-Country HIV/AIDS Projects.

Botswana's national MTCT programme

In 1999, Botswana became the first country in Africa to start an integrated VCT/MTCT programme using zidovudine for pregnant women testing positive in antenatal clinics. The programme was introduced in the cities of Gaborone and Francistown. However, when a 2000 antenatal sentinel survey indicated a prevalence of 38.5% (which translated into 26 newborns infected daily), the government decided to extend the programme countrywide to all health facilities offering maternal and child health services. Between April 1999 and November 2001, the programme reached 31 971 women, 17 732 (55%) of whom were counselled and 9422 (53%) of those counselled were tested.

By December 2001, the programme had been implemented in all 24 of Botswana's health districts. About 81% of women registering in public health facilities are currently counselled about MTCT; 57% of those counselled are tested and, of those found to be HIV-positive, 58% are started on zidovudine treatment. Plans to accelerate the programme call for training, management capacity-building, improving the quality of counsellor support, strengthening care and support services, and community and social mobilization. In addition, Botswana is studying further improvements, including combination antiretroviral therapy and various infant-feeding practices.

Focus: AIDS and orphans

Declaration of Commitment

By 2003, develop and, by 2005, implement national policies and strategies to build and strengthen governmental, family and community capacities to provide a supportive environment for orphans and girls and boys infected and affected by HIV/AIDS, including by providing appropriate counselling and psychosocial support, ensuring their enrolment in school and access to shelter, good nutrition and health and social services on an equal basis with other children; and protect orphans and vulnerable children from all forms of abuse, violence, exploitation, discrimination, trafficking and loss of inheritance (paragraph 65).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

Living today are an estimated 14 million children who have lost one or both parents due to AIDS. Approximately 80% of these children—11 million—live in sub-Saharan Africa. However, the orphan crisis is not restricted to that region. There are an estimated 1.8 million orphans living in South and South-East Asia, 85 000 in East Asia and the Pacific, 330 000 in Latin America, 250 000 in the Caribbean, and 65 000 in North Africa and the Middle East.

As the number of adults dying of AIDS rises over the next decade, increasing numbers of orphans will grow up without parental care and love, and be deprived of their basic rights to shelter, food, health and education. Already, there are an estimated 1 million orphans living in Nigeria, for example, 890 000 in Kenya and 780 000 in Zimbabwe. Elsewhere in the world, huge numbers of children have also lost at least one parent to AIDS, as is the case for 290 000 children in Thailand, 200 000 in Haiti and 32 000 in Guatemala. Sadly, these numbers will increase as the epidemic matures. Forecasts indicate that the number of children orphaned by AIDS will rise dramatically in the next 10–20 years, especially in southern Africa. In South Africa alone, it is estimated that, by 2010, there will be 1.5 million children orphaned as a result of AIDS. In other countries, where epidemics are relatively new but growing rapidly, the impact of large numbers of orphans has yet to be felt. But the future cannot be ignored, and preparations must be made now.

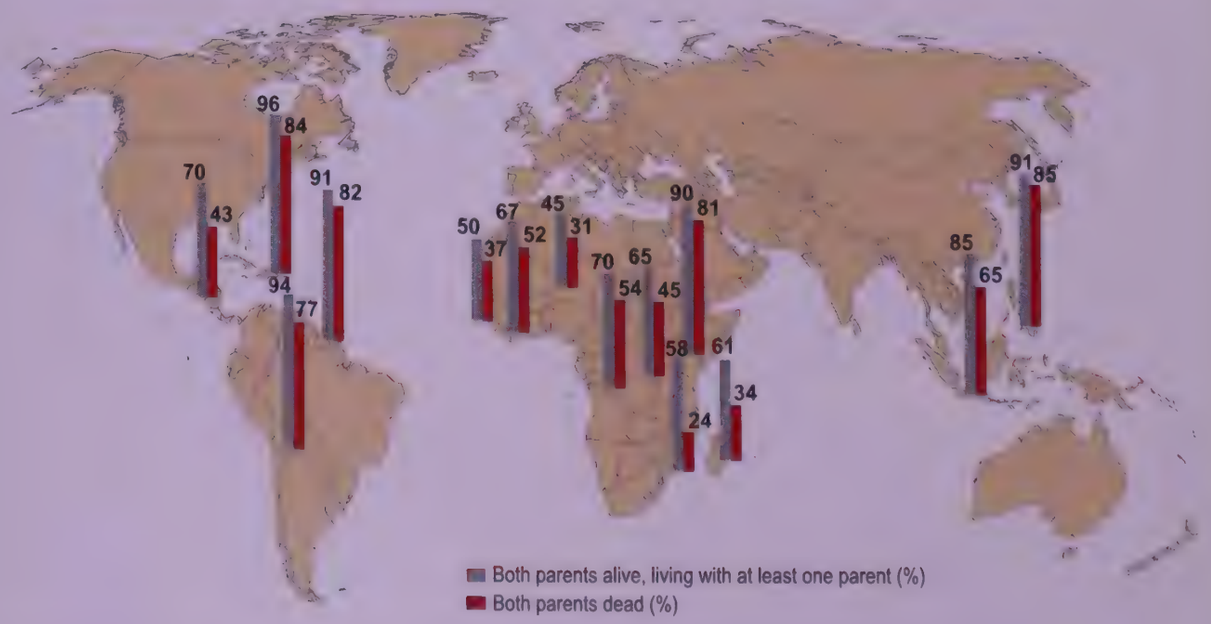
Sensitive responses to complex needs

Programmes should not single out children orphaned by AIDS, since targeting specific categories of children can result in increased stigmatization and discrimination. However, to be orphaned by AIDS does create unique circumstances, not least because these children are more likely than other orphans to lose both parents, often in relatively quick succession. (Once one parent has acquired HIV, the other is highly likely to also become infected.) Very young children orphaned by AIDS may have acquired AIDS themselves; and children orphaned by AIDS are more likely than other orphans to encounter stigma and ostracism.

The vulnerability of children orphaned by AIDS and that of their family starts well before the death of a parent. The emotional anguish of the children begins with their parents' distress and progressive illness. This is compounded as the disease causes drastic changes in family structure, taking a heavy economic toll, requiring children to become caretakers and breadwinners, and fueling conflict as a result of stigma, blame and rejection. Eventually, the children suffer the death of their parent(s), and the emotional trauma involved. They then have to adjust to a new situation, with little or no support, or they may suffer exploitation and abuse.

Figure 31

Percentage of children aged 10-14 who are still in school, according to whether their parents are alive: selected countries, 1997-2001



Sources: UNICEF (1997-2001) Multi-Indicator Cluster Surveys; Macro International (1997-2001) Demographic and Health Surveys

As AIDS tears at the family fabric, assisting ill parents to live longer by providing appropriate medicine, food and care at home is one of the best ways to benefit children, particularly as many parents die of opportunistic infections that are treatable with inexpensive drugs. Home-based care for people living with HIV/AIDS is a means of addressing not only the health of those who are ill, but also the economic and psychosocial needs of their children.

Recent findings show that orphans who have lost both parents are even more likely to drop out of school and to be drafted into child labour than children who have lost one parent. Since the family is likely to have become more impoverished before the death of the parents, the children are often left destitute once their parents are gone. A situation analysis of children orphaned by AIDS in Côte d'Ivoire showed that traditional Ivorian family structures (which have proved capable of coping with many social and economic strains over the years) are facing serious problems with AIDS. Carried out by the World Bank, in collaboration with UNICEF and UNAIDS, the research shows that extended families find it harder to assign substitute parents to children orphaned by AIDS than to children orphaned by other causes, and to cover the costs of their education and upkeep. In addition, the children are less inclined to accept family authority under these difficult conditions.

Moreover, the ability to stay in school—so crucial to a child's future—suffers significantly when a child loses one or both parents. In the late 1990s, a survey of 646 orphaned and 1239 non-orphaned children in Kenya found that 52% of the children orphaned by AIDS were not in school, compared to 2% of the non-orphans. Among the orphaned children, 56% of girls and 47% of boys had dropped out of school within 12 months of a parent's death. Girls often drop out of school because they assume the responsibility for caring for parents who are ill, or because they must look after household duties in the parents' stead, including that of caring for younger siblings. Other children leave school because they are discriminated against, are psychologically distraught, or cannot pay the school fees.

Many children appear to be slipping through social safety nets entirely, ending up in households with no resident adult, or as children on the streets. There is concern that they might come to constitute a 'lost generation' of young people who have been marginalized and excluded for much of their lives.

Declaration of Commitment

Ensure non-discrimination and full and equal enjoyment of all human rights through the promotion of an active and visible policy of de-stigmatization of children orphaned and made vulnerable by HIV/AIDS (paragraph 66).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

The best solutions are close to home

In order to counter the stigma often directed at children orphaned by AIDS, efforts should address the needs of all vulnerable children in a community affected by the epidemic. Areas made vulnerable by HIV/AIDS can and should be targeted but, within these communities, residents and local government should provide assistance to the most vulnerable children and households, regardless of the specific causes of vulnerability. Experience shows that successful programmes are those that are child-centred, family- and community-focused, and respect and protect the rights of the child.

Growing up in communities disrupted by the epidemic, orphans are more likely to cope if they can live in surroundings that are as familiar, stable and nurturing as possible. The consensus is that orphans should be cared for in family units through extended family networks, foster families or adoption. At the very least, siblings should not be separated, and children should remain in, or close to, their communities. Even child-headed households can be viable, although hardly ideal, options if given enough community and State support.

While Africa is still in the early stages of its orphan crisis, many children and many communities are coping, and their resilience and fortitude should not be underestimated. Millions of orphans have already been absorbed into extended family networks, even in the poorest communities. Formal and informal fostering arrangements are also common in some countries. Indeed, many societies in Africa have retained the structures and ethos of community-based orphan care—traditions that have helped them cope with previous calamities.

On the other hand, formal institutions, such as orphanages, have proved to be a tiny and inadequate part of a response. The financial costs of maintaining a child in one of these institutions outstrip that of other forms of care, making orphanages an unsustainable option. Furthermore, such institutions often

Better institutional care

'Step Forward...for the world's children' is a programme created and funded by the Abbott Laboratories Fund to help improve the lives of children orphaned and made vulnerable by AIDS around the world. It works in a number of countries in Africa and Asia, in partnership with nongovernmental organizations, local institutions and governments.

One of Step Forward's projects is in Romania, where many HIV-positive children have been abandoned and are growing up in institutions or health facilities. For example, abandoned children who live in the children's ward of the Constanta Municipal Hospital do not have a structured home life or attend school regularly. Through a Step Forward grant, a family-style group home was purchased and renovated, enabling 10 of the orphaned and abandoned children from the Municipal Hospital's Children's Ward to be housed in a more nurturing environment. The home, which opened in August 2001, allows for the children to be raised by 'social mothers' and to attend local schools.

leave children without the social and cultural skills they need to function successfully as adults. However, orphanages can be a last resort, either as a temporary solution, or one for children with no other alternatives. Where orphanages do operate, there should be proper registration of children and monitoring of standards of care.

Supporting extended families and affected communities

The extended family can only serve as part of the solution to mass orphanhood if adequately supported by the State, the private sector and the surrounding community. This need for support is desperate in the worst-hit regions where the capacities of families are being eroded by economic decline and deepening poverty. In Zimbabwe, almost all respondents in a recent study of AIDS-affected households said they found it more difficult than ever to cope with child support and other household needs following the death of a mother. Over half the urban respondents and more than one-third of the rural respondents blamed this on worsening economic conditions. More than one-fifth said they were already battling to cope with the effects of illness and death. In the high-HIV-prevalence district of Kweneng, Botswana, an orphan-registration exercise conducted in mid-2000 found that only 22.1% of the people registered as caregivers for orphans were employed. The others lacked productive employment, and fully 40% of them were grandparents or elderly relatives.

But it is also clear that families are willing to take in an orphan if support is made available. Support to orphans and other disadvantaged children is a State obligation under the Convention on the Rights of the Child. Such support can take many forms: free health care and education (or subsidized school fees), food subsidies or supplements, enhanced access to microcredit, and other forms of financial support.

The World Food Programme is extending its existing school-feeding operation in various parts of Africa to support families and children made vulnerable in the context of AIDS. In Kenya's Mbeere District, an area of chronic food insecurity and very high HIV prevalence,

Helping communities and caregivers

The François-Xavier Bagnoud Institute provides support to orphans and vulnerable children, as well as to their caregivers, in Africa, Latin America, Asia and Eastern Europe. In Uganda, for example, the Institute's Project for Orphans and Children at Risk in the Luwero District helps place orphans in guardian families; barters with local primary schools to obtain free enrolment for these children (i.e., in exchange for goods that the schools need); and helps to set up income-generating projects, such as agriculture, bee-keeping or sewing, for guardian families. The project has so far helped over 3000 vulnerable children enrol in over 50 primary schools in their home area and has helped to establish more than 800 income-generating projects for guardian families. Through the barter system, schools have been provided with materials such as roofing timber, repair tools and supplies, and items required for school income-generating projects, such as raising poultry or cows, tailoring, banana/maize-growing and bee-keeping.

the Programme provides take-home rations for 90 000 orphans and their caregivers. This enables these children to continue school. Another approach is microinsurance. The ILO's STEP Programme (Strategies and Tools against Social Exclusion and Poverty) is working to extend this type of insurance to individuals and families affected by HIV/AIDS, including those who have taken on the care of orphans.

Partnerships between governments, nongovernmental organizations and private sector firms are also putting together innovative responses. In Burkina Faso, for example, the *Initiative Privée et Communautaire contre le SIDA au Burkina Faso* works in partnership with the national government, the International HIV/AIDS Alliance and the Step Forward initiative. The Initiative's programmes in Ouagadougou and the city's outlying areas provide financial and technical support for community assessments. They also provide psychosocial support to orphans and vulnerable children through a network of community-based volunteers, and help meet basic needs through home-based care and support activities. In addition, insurance programmes strengthen the finances of affected families.

A part of the solution

Empowering affected children first of all means regarding them as active participants, rather than mere victims. Many children already function as heads of households and as caregivers. They are a vital part of the solution and should be supported in planning and carrying out efforts to mitigate the impact of HIV/AIDS in their families and communities. For instance, the community-based organization Humuliza in the United Republic of Tanzania has an impressive programme called *Vijana Simama Imara* (Swahili for *adolescents stand firm*), which helps orphans not only gain skills but also utilize such skills in order

Memory books

In many countries, memory books have become an important way of opening channels of communication within families about HIV and, in particular, to help HIV-positive mothers tell their children of their serostatus. Terminally-ill parents and their children work together to compile the memory book, which is often an album containing photos, written anecdotes, and other family memorabilia.

In Uganda, use of memory books was pioneered by The AIDS Support Organization (TASO) in the early 1990s. Since 1998, the National Association of Women Living with AIDS has promoted this approach on a wider scale, with help from PLAN Uganda. The Association had found that HIV-infected mothers had great difficulty communicating with their children about their ill-health, and that memory books were good ways for the women to introduce the idea of HIV into their children's lives and discuss its impact. The book serves as a reminder to children of their roots so they do not lose their sense of belonging. The book also promotes HIV prevention, because the children witness and understand the ordeal the parent is going through and do not want to suffer the same fate.

to empower themselves for the future. The programme receives financial support from Humuliza but is entirely youth-run, with the elder orphans serving as a resource for the younger ones.

Children in households with ill parents should also participate in decision-making regarding their future foster care. This is crucial for succession planning, which helps parents (who know they are HIV-positive) prepare for the future and provide their children with the necessary care and support. So-called 'memory books' or 'memory boxes' offer valuable psychological benefits; usually containing important family information and memorabilia, these are often jointly created by parents and children.

Much can be done to ensure the legal and human rights of orphans and vulnerable children. Many communities are now writing wills to protect the inheritance rights of women and children. In Malawi, ongoing work by the CORE Group on the Wills and Inheritance Act has involved countrywide consultations with widows, widowers, orphans, non-orphans, judges and other officials, and traditional leaders. Land- and property-grabbing (whereby unscrupulous adults attempt to rob orphans of their property once the children have no parents to protect their rights) is one of the practices being tackled.

An innovative community-based initiative has emerged in rural eastern Zambia whereby traditional inheritance customs protect women and children by allowing them to remain on their land after the husband or father dies. The Kanyanga Orphan Project set out to improve the farming skills and nutrition of families with vulnerable children by supplying seeds, fertilizer and tools. When it became clear that the families lacked the skills necessary to increase food production, the project hired an agronomist to improve agricultural techniques and yields. The project has surpassed expectations, and now provides an important source of family income, including funds for school fees.

Communities on the front line

The Salvation Army's Masiye Camp in Zimbabwe has been working for several years with children living with or affected by AIDS, with special emphasis on psychosocial support. Many of the children have poor life skills and exhibit psychosomatic disturbances, depression, very low self-esteem, disturbed social behaviour and hopelessness. The experiences of these children confirm that the death of a parent (or, worse still, both parents, as is often the case with AIDS) causes severe trauma and can stunt children's development.

However, the resilience and coping capacity of these children can be enhanced with relatively simple, direct and culturally appropriate psychosocial support. Since the project started in 1998, over 3000 children affected by AIDS participated directly in the life-skills camps at Masiye. Case-based documentation of children participating in these camps shows that the camps had a significant impact on children's coping capacity. Moreover, when young people are drawn in to provide psychosocial support and care for orphans, they themselves are likely to adopt safer behaviour.

Some governments are mobilizing for action (especially in southern Africa), and regional cooperation is also growing. The Regional Psychosocial Support to Children Affected by AIDS Initiative, a technical resource network, provides an important example of how regional successes can be shared and rapidly expanded. It began in mid-2001 by bringing together people and groups from five countries at the Salvation Army's Masiye Camp for vulnerable children in Zimbabwe. Since then, the project has mobilized millions of dollars for the development of resource materials (such as its *Teenage Parenting Manual for Child-Headed Households*), capacity-building work, programmes in youth development, joint advocacy and direct grants.

More generally, it is communities that are at the forefront of creating the scores of orphan-care programmes to ensure that vulnerable children have access to care and support. Most of these projects and programmes exist thanks to the efforts of women's groups, church-based groups and nongovernmental organizations.

The challenge ahead

The challenge of dealing with the rising numbers of orphans and vulnerable children (e.g., providing care to their HIV-positive parents) is beginning to be addressed on a wider scale. Such initiatives must be carefully executed, with maximum regard for the best interests of the children and families concerned, as well as for the needs of society. In the past two years, the UN system, led by UNICEF, has developed a set of principles and strategies to guide programmes, while protecting the rights of orphans and vulnerable children. Among other things, these principles emphasize the need to:

- strengthen protection, care and coping capacities within extended families and communities;
- build the capacity of children to meet their own needs;
- pay attention to the roles of girls and boys, and address gender discrimination;
- ensure that governments provide essential services; and
- reduce stigma and discrimination.

UNICEF convenes regular consultations and discussions on these principles and on strategies to facilitate information exchange, collaboration and follow-up.

Caring and coping interventions for children and communities must take into account the long-term nature of AIDS-related problems and impacts. Millions of children have already lost at least one parent to the epidemic, and millions more will do so in the years to come. The challenge is to protect their rights and enable them to realize their potential.

Care, treatment and support for people living with HIV/AIDS

Care, treatment and support for people living with HIV/AIDS

The Declaration of Commitment (from the United Nations General Assembly Special Session on HIV/AIDS) is a historic landmark in the fight against HIV/AIDS. For the first time, treatment and care, including access to antiretroviral drugs, were specifically recognized by all the world's governments as an essential element of the response to the global HIV/AIDS pandemic.

Comprehensive care for people living with HIV/AIDS involves a number of important features, in addition to increased provision of antiretrovirals. These features include, but are not limited to, the following:

- available, accessible voluntary counselling and testing (VCT) services;
- prevention and treatment of tuberculosis and other infections;
- prevention and treatment of HIV-related illnesses;
- palliative care;
- prevention and treatment of sexually transmitted infections (STIs);
- prevention of further HIV transmission, through existing technologies (e.g. male and female condoms, clean needles and syringes), and using future technologies (e.g., vaccines and microbicides) as well as behavioural change);
- family planning;
- good nutrition;
- social, spiritual, psychological and peer support;
- respect for human rights; and
- reducing the stigma associated with HIV/AIDS.

A central element of a comprehensive HIV/AIDS care strategy is the wholesale integration of prevention and treatment planning and interventions. Prevention and treatment can no longer be seen as unrelated strategies.

Research is needed to anchor an effective overall response to HIV/AIDS. Rigorous analyses of basic, clinical, epidemiological and sociobehavioural research results must be used to guide the implementation of prevention, treatment and care programming.

Despite significant achievements in the past two years, the vast majority of the over 38 million people living with the virus in low- and middle-income countries at the end of 2001 remained severely deprived of even basic medications for treating HIV-related illnesses and for relieving pain.

Several factors contribute to this. Firstly, HIV diagnostic tests (as part of broader voluntary counselling and testing services) are not universally available and the majority of people living with HIIV/AIDS remain unaware of their HIV status. Secondly, despite recent reductions in the price of antiretroviral drugs, the lowest prices currently on offer still greatly exceed the annual per capita health expenditures of most low- and middle-income countries. Thirdly, health systems in such countries are ill-equipped to deliver effective treatment of HIV/AIDS and its associated illnesses. Finally, in places where these services are available, fear and stigma associated with HIV/AIDS and the abuse of human rights of people living with the virus contribute to the ongoing reluctance among many people to come forward for testing and treatment.

Declaration of Commitment

By 2003, ensure that national strategies, supported by regional and international strategies, are developed [...] to strengthen health-care systems and address factors affecting the provision of HIV-related drugs, including antiretroviral drugs, inter alia, affordability and pricing, including differential pricing, and technical and health-care system capacity [...] (paragraph 55).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

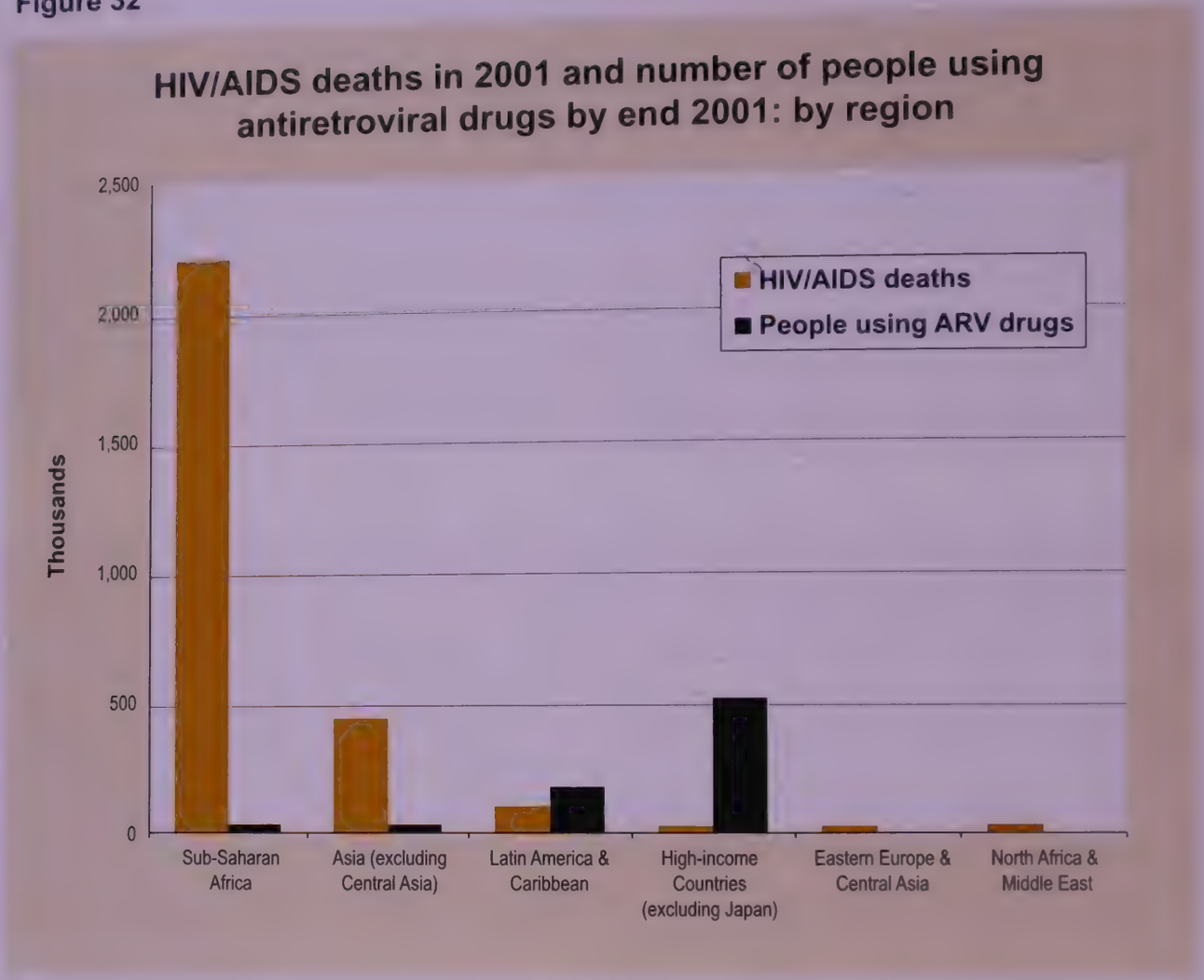
Treatment for all? A beginning

Improving access to antiretroviral drugs is a global priority. More drugs will catalyse better health-care delivery systems. Better health-care delivery systems will promote greater capacity to deliver affordable medical technology.

When the current number of HIV/AIDS-attributable deaths is contrasted with the numbers of people using antiretroviral drugs in different regions around the world, the current global inequity in treatment is glaring (see Figure 32). However, at the same time, it illustrates the dramatic impact of extended treatment access on the lives of some people living with HIV/AIDS.

In high-income countries where combination antiretroviral treatment became widely available from 1996 onwards, AIDS-related mortality dropped sharply for two or three years and has since plateaued. The past two years have seen significant achievements in the availability and use of antiretroviral and other essential drugs in some low- and middle-income countries. Improvement in mortality and morbidity trends due to availability of antiretrovirals is particularly notable in Brazil and should become visible during the next few years in other countries in Latin America, the Caribbean and Asia.

Figure 32



Source: WHO/UNAIDS, 2002

Drug prices plummet

Following the introduction of combination therapies in 1996, conventional wisdom held that these treatments would, for the foreseeable future, remain financially and logistically beyond the reach of most HIV-positive people living in low- and middle-income countries.

In order to contest this conventional wisdom, in 1998, UNAIDS and WHO set up a Drug Access Initiative comprised of pilot projects in Côte d'Ivoire and Uganda and, later, in Chile and Viet Nam. This initiative examined constraints—technical, administrative and financial—to the use of antiretroviral therapy in resource-poor environments. The projects involved small numbers of people (e.g., 1600 in Uganda), but yielded important lessons about evidence-based treatment guidelines, patient compliance, stock management and referral systems. These insights have been invaluable in helping expand AIDS-related care, treatment and support, now that prices are being significantly reduced.

In 2000, broad application of differential pricing for AIDS drugs, based on country need and ability to pay, meant that prices offered to low- and middle-income countries fell dramatically. At the beginning of 2000, the price of combination antiretroviral drugs to treat one patient for one year was typically between

Progress in treatment access

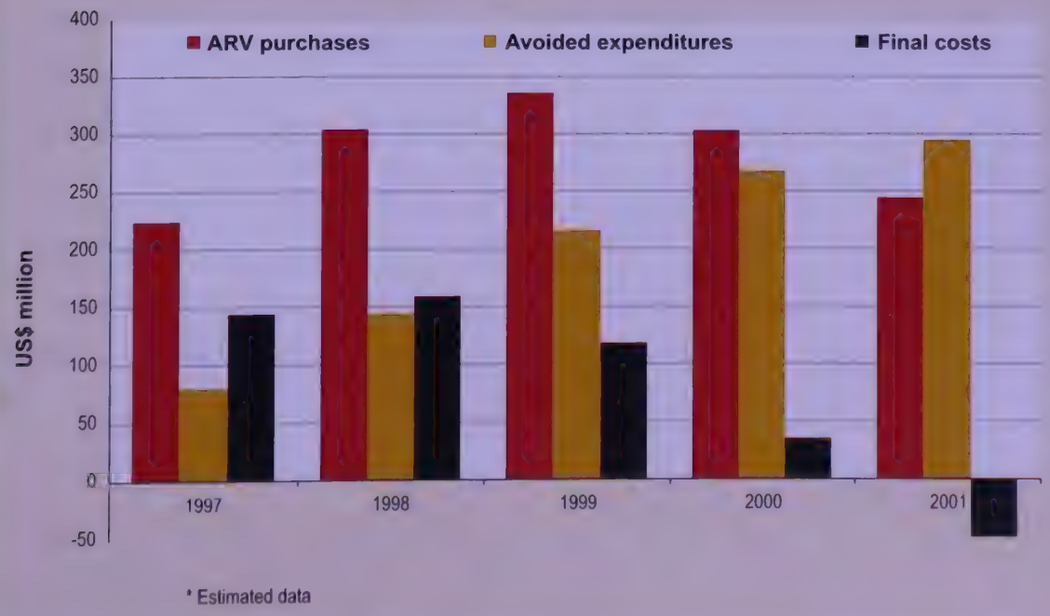
Latin America and the Caribbean have become leaders in providing antiretroviral treatment to people living with HIV/AIDS. Of 24 countries in the region surveyed in 2001, 11 have policies, regulations or laws that guarantee access to antiretroviral therapy.

Brazil has shown a long-standing commitment to providing universal antiretroviral access for its population. But in many other countries of the region, thanks to the bold advocacy efforts of a range of nongovernmental organizations and people living with HIV/AIDS, an increasingly strong commitment to provide access to antiretrovirals has emerged. At the end of 2001, approximately 170 000 people across the region were receiving ARV treatment, including 105 000 in Brazil, where prevention efforts are complemented with an extensive treatment and care programme that guarantees state-funded ARV therapy for those living with HIV/AIDS. By reducing HIV/AIDS-related morbidity, Brazil's treatment and care programme is estimated to have avoided 234 000 hospitalizations in 1996–2000.

By 2002, the public sectors in Argentina, Costa Rica, Cuba and Uruguay were also providing free and universal access to ARV treatment. However, there are still large disparities in the quality and scope of different countries' ARV programmes. There are also recent reports of drug supply shortages in Argentina, due to the current political and economic crisis in the country.

Countries such as Honduras and Panama are now also providing treatment access. At the request of the Caribbean Heads of Government, Caribbean countries (led by CARICOM, within the framework of the Pan-Caribbean Partnership) are developing a common regional strategy to accelerate and broaden access to treatment and care for those living with HIV/AIDS. Countries such as St Kitts and Nevis, Barbados and Grenada have begun implementing new national programmes to enhance care and treatment.

Cost of antiretroviral drug purchases, avoided expenditures and final costs to the Ministry of Health Brazil: 1997-2001*

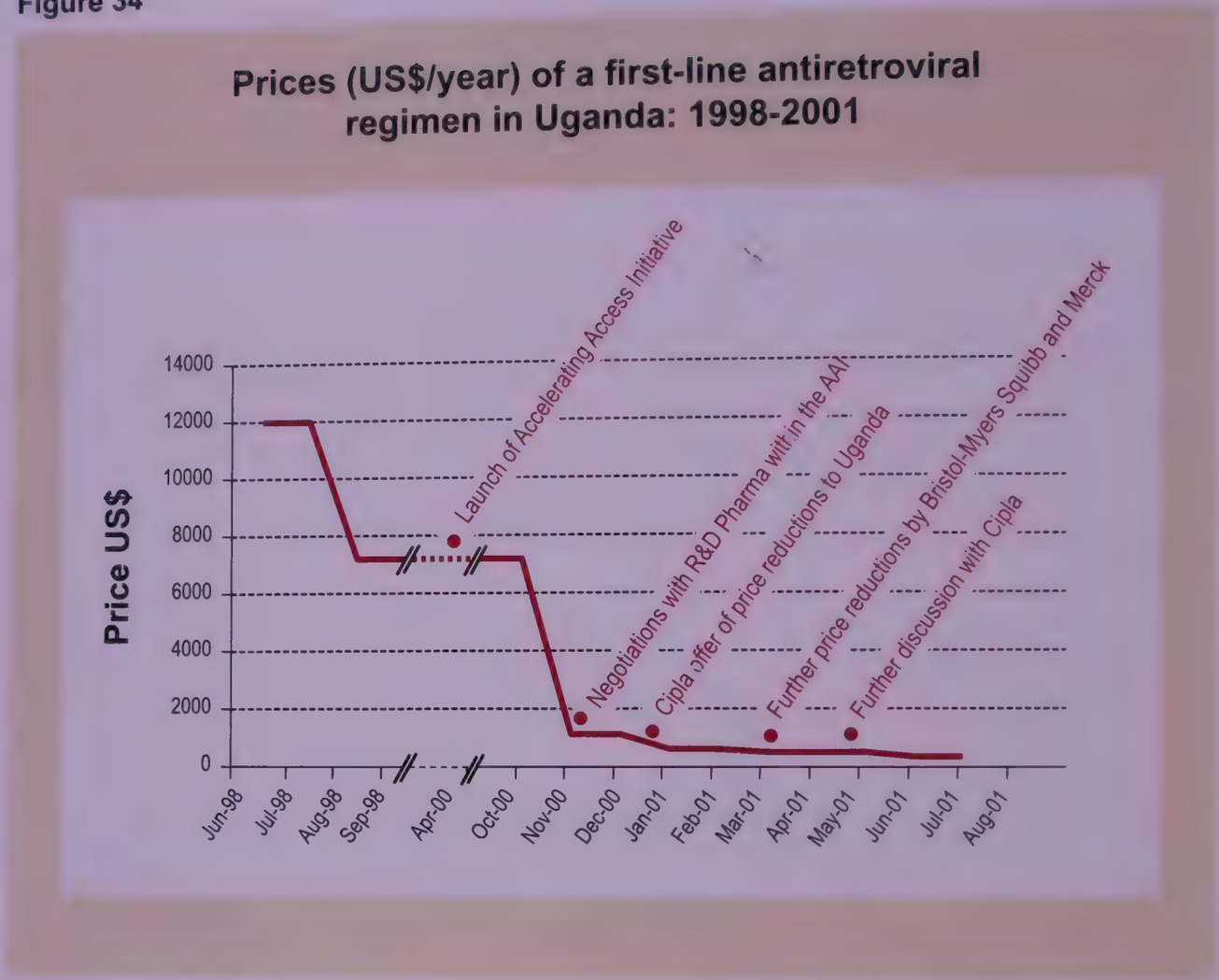


* Estimated data

Source: Ministry of Health Brazil, 2001

Figure 33

Figure 34



Source: WHO/UNAIDS, 2002

US$10 000 and US$12 000 almost everywhere. By the end of 2000, prices of US$500 to US$800 were being negotiated by low- and middle-income countries for therapies based on patented and generic drugs. By December 2001, certain generic combinations were on offer for as low as US$350 per person per year.

Price reductions of this magnitude have, of themselves, a significant impact on the accessibility of therapy. Analysis conducted by McKinsey and Company on increasing access to antiretrovirals in Uganda has underlined the extent to which drug costs seriously limit the country's capacity to boost treatment provision. At an annual charge of around US$2400, about 5000 people could be reached. When the annual cost of drugs per person fell to US$600, about 50 000 people could be reached.

For middle-income countries with relatively low HIV prevalence, the price reductions bring the cost of providing universal access to antiretrovirals down to proportions of gross domestic product similar to those of the world's high-income countries. Reduced prices would lower expenditures in Chile, Morocco and Romania to less than 1% of gross domestic product for example. These countries already have health infrastructures with the capacity to deliver the drugs. However, in low-income countries with

high AIDS prevalence, a much higher proportion of economic output would be required to provide antiretrovirals to those in need.

The reductions achieved during 2001 in the prices of antiretroviral treatments for low- and middle-income countries were the result of a convergence of forces. Activist organizations and people living with HIV/AIDS throughout the world have been instrumental in placing treatment-access issues at the top of the agenda. Other important factors influencing large-scale price reductions have included dialogue between national governments, international organizations and large pharmaceutical manufacturers; competition from generic drug manufacturers; and legal and diplomatic action at national and international levels.

A number of nongovernmental organizations, including OXFAM and *Médecins Sans Frontières*, have prioritized advocacy efforts to secure price reductions for antiretrovirals to improve treatment access in low- and middle-income countries. In addition, the International HIV/AIDS Alliance, a nongovernmental organization based in the United Kingdom, has produced practical resources to assist community-based organizations in improving access to HIV/AIDS treatment.

Accelerating access

An important element of international efforts to secure price reductions for antiretroviral drugs has been the establishment of an international framework—a public/private partnership on accelerating access. This partnership was initiated in 2000 between the UN (UNICEF, UNFPA, WHO, the World Bank and the UNAIDS Secretariat) and five major pharmaceutical companies with products, research and development portfolios in HIV/AIDS (Boehringer Ingelheim GmbH, Bristol-Myers Squibb, GlaxoSmithKline, Merck & Co., Inc. and F. Hoffmann-La-Roche Ltd), with Abbott Laboratories Ltd joining later. The purpose of the partnership is to increase access to HIV/AIDS care, treatment and support. Negotiations have proceeded along two tracks: firstly, dialogue with the pharmaceutical industry to make high-quality drugs (including generics) more affordable in low- and middle-income countries; and, secondly, technical collaboration with countries to expand their capacity to deliver care, treatment and support.

The UNAIDS Contact Group on Accelerating Access to HIV/AIDS Care and Support reports to the UNAIDS Programme Coordination Board. It provides an important forum for exchanging information and sharing country and regional experiences. This group includes governments of donor and low- and middle-income countries, civil society representatives, the private sector and various multilateral organizations.

In May 2000, agreement on a set of fundamental principles to guide collaboration helped pave the way for preferential pricing agreements that governments would negotiate individually. Additional impetus for action came in May 2001, when the UN Secretary-General met with representatives of the major pharmaceutical companies to make the case for moving ahead on differential pricing. As all of these pieces fell into place, the situation began to improve rapidly.

Following breakthroughs on the principle of preferential pricing for AIDS drugs in low- and middle-income countries, attention has turned to securing procurement agreements between countries (or groups of countries) and drug manufacturers.

Meanwhile, generic drug manufacturers in low- and middle-income countries (notably Brazil, India and Thailand) are producing their own versions of certain antiretrovirals and offering them in their domestic and, in some cases, overseas markets. 'South-to-South' cooperation on drug access is increasing. In April 2001, India and South Africa signed a declaration of intent to cooperate in a variety of health fields, including technology transfer and importation of inexpensive HIV/AIDS-related drugs. Thailand, which has considerable experience both in generics production and community care, has signed a similar agreement with Ghana. In late 2001, Indian generics manufacturer, Cipla Ltd, agreed to supply the Nigerian Health Ministry with a three-drug antiretroviral therapy at US$350 per patient per year. Under the US$4 million pilot programme, about 10 000 adults and 5000 children are to be treated in selected hospitals throughout the country. People undergoing treatment will pay US$120 per year and the government will cover the remaining cost.

Progress at country level

As of March 2002, 36 of 78 countries who have expressed an interest in collaborating with UNAIDS on access to care and treatment (see 'Accelerating access' box) have completed, or are in the advanced stages of developing, national care and treatment plans, with technical assistance from the UN. Eighteen of these countries—Barbados, Benin, Burkina Faso, Burundi, Cameroon, Chile, Republic of the Congo, Côte d'Ivoire, Gabon, Honduras, Jamaica, Mali, Morocco, Romania, Rwanda, Senegal, Trinidad and Tobago, and Uganda—have reached agreement with manufacturers on significantly reduced drug prices. Individual companies have reported reaching agreements with four additional countries—Botswana, Chad, the Democratic Republic of the Congo and Malawi. The funding mechanisms employed range from direct government subsidies to patients (in Chile, Côte d'Ivoire, Gabon, Mali, Romania, Senegal, and Trinidad and Tobago), to the purely out-of-pocket-purchasing arrangement in Uganda.

Over the first few months of operation, there was already a marked increase in treatment access in countries where plans were beginning to be implemented. In the first 11 countries, as of December 2001, some 22 000 people had gained access to antiretroviral therapy, representing a seven-fold rise in the number of patients treated. Although these numbers are small, amouting to only a fraction of those in need of antiretroviral therapy, they nevertheless represent an achievement, given the fact that virtually no one in these countries had previously received treatment. Since the end of 2001, the numbers have continued to grow.

The quest for a 'new deal'

It is important to ensure that further research and development of new and improved HIV therapies are not compromised by price reductions on existing drugs. In the absence of a cure and a vaccine, and in view of the serious risk of resistance to existing antiretroviral drugs, innovation is critical. Historically, the protection of intellectual property through patenting has ensured that profits are made by the pharmaceutical industry in return for ongoing investments in research and development. However, although patent protection has benefited shareholders and society in high-income countries, it has not worked for the poorer countries, where approximately 95% of the world's population with HIV/AIDS lives.

In 2001, UNAIDS called for a 'new deal' with industry to ensure that new forms of HIV treatment are made available as rapidly to people living with HIV/AIDS in low- and middle-income countries as to those in high-income countries. Multiple approaches are needed, including the following:

- a system of tiered pricing, dependent on the relative incomes of countries;
- competition between suppliers to reduce prices;
- regional procurement to secure price reductions through large-volume purchases;
- licensing agreements between patent-holding companies and manufacturers in low- and middle-income countries;
- reinforcement of health safeguards in trade agreements, such as compulsory licensing to manufacture-patented medicines where HIV/AIDS constitutes a national emergency; and
- new private- and public-funding mechanisms to help pay for treatment for the poorest countries of the world.

At the same time as these approaches are applied to extending access to treatment in low- and middle-income countries, high-income countries need to continue to support the intellectual property protections and financing systems that allow for investment to be recouped for research and development by the pharmaceutical industry.

TRIPS clarified at Doha

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) has been the subject of a great deal of debate regarding its impact on public health, in general, and its impact on access to medications, in particular. The World Trade Organization Ministerial Conference in Doha, Qatar, however, achieved a broad international consensus that TRIPS must be part of wider national and international action to address serious public health problems, including the AIDS epidemic, in low- and middle-income countries. In November 2001, all 142 World Trade Organization Member States endorsed the Doha Declaration on the TRIPS Agreement and Public Health. This document stresses that TRIPS "can and should be interpreted and implemented in a manner supportive of WTO members' right to protect public health and, in particular, to promote access to medicines for all".

While acknowledging the importance of intellectual property protection for the innovation of new medicines and technologies, the Doha Declaration provided a blanket extension of 10 years (from 2006 to 2016) for countries classified as 'least developed', to comply with the patent requirements of the Agreement in the pharmaceutical sector.

The Doha Declaration states explicitly that "public health crises, including those relating to HIV/AIDS, tuberculosis, malaria and other epidemics, can represent a national emergency" for which governments can issue a compulsory licence authorizing, under certain conditions, the use of patented products.

Financing mechanisms

Price reductions for antiretrovirals notwithstanding, difficult decisions are required by national governments to allocate scarce resources to boost HIV/AIDS treatment access. A number of new sources of financing have emerged to support low- and middle-income countries in the purchase of antiretrovirals.

The Global Fund to Fight AIDS, Tuberculosis and Malaria reviewed its first round of funding applications in April 2002, and announced its first disbursements. Resources in the Fund available for the year 2002 amount to some US$800 million, and the Fund has made the financing of treatment access one of its core activities (see 'Meeting the need' chapter).

The World Bank's Multi-Country HIV/AIDS Prevention and Control Program (MAP) for Africa has approved a package of loans and grants for several Caribbean countries and has agreed that parts of these loans may be assigned to the purchase of antiretroviral drugs. Barbados is the first country that has met the required criteria and drawn on these funds to finance antiretroviral access. The second phase of MAP will more directly address treatment access.

Private industry initiatives

A number of initiatives have been set up by individual pharmaceutical companies to help improve the response of low- and middle-income countries to the HIV/AIDS epidemic. These include Abbott's Tanzanian Drug Access Initiative, Bristol-Myers Squibb's 'Secure the Future' project, Boehringer Ingelheim's offer to provide nevirapine free of charge for use in preventing mother-to-child transmission of HIV, and projects initiated by GlaxoSmithKline, Hoffmann-la-Roche and Merck & Co.

Public/private partnerships are also aiming to achieve results. The Botswana Comprehensive HIV/AIDS Partnership (a joint effort of the Government of Botswana, the Merck Company Foundation and the Bill and Melinda Gates Foundation) has made significant strides towards improved care and treatment in Botswana. Cash contributions total US$100 million over 5 years, and Merck is supplying free of charge to the Government of Botswana any antiretrovirals it produces.

Medicines for opportunistic infections and pain

HIV/AIDS care requires a variety of essential medicines, in addition to antiretrovirals. If available, these effective and relatively inexpensive drugs can prevent or treat many of the common HIV-related diseases that are responsible for the main burden of illness and death in high-prevalence countries.

So far, agreements between countries and individual pharmaceutical companies, under the Accelerating Access Initiative, cover only eight drugs—all antiretrovirals. Even where cheaper alternatives exist, many of those trying to procure drugs have access neither to comparative prices nor to the identity of manufacturers who can supply these drugs. To address this problem, a partnership of *Médecins Sans Frontières*, UNICEF, WHO and the UNAIDS Secretariat has issued biannual reports since 2000, on sources and prices of drugs. The reports, based on surveys of over 200 pharmaceutical manufacturers in 40 countries worldwide, provide market information on the best prices available to help procurement agencies make informed decisions on where to buy drugs.

The pharmaceutical company Pfizer has donated its anti-fungal Diflucan (fluconazole)

for low-income AIDS patients in South Africa suffering from cryptococcal mengingitis and esophageal candidiasis—two opportunistic infections commonly associated with AIDS. Through a partnership with the South African Ministry of Health, 6000 patients had been treated with fluconazole in all nine provinces by September 2001. In late 2001, Pfizer began expanding its Diflucan Partnership Programme, which also includes a package of physician training for secondary- and tertiary-care hospitals in the treatment of AIDS-related opportunistic infections, beyond South Africa, and the company has declared its commitment to work towards ensuring access to fluconazole in all least-developed countries.

Improved tuberculosis management must be linked to HIV treatment

Approximately one-third of people living with HIV worldwide are co-infected with *M. tuberculosis,* and 70% of them live in sub-Saharan Africa. Tuberculosis is also the leading cause of death among HIV-infected people, and HIV has been responsible for a global surge in the number of cases of active tuberculosis.

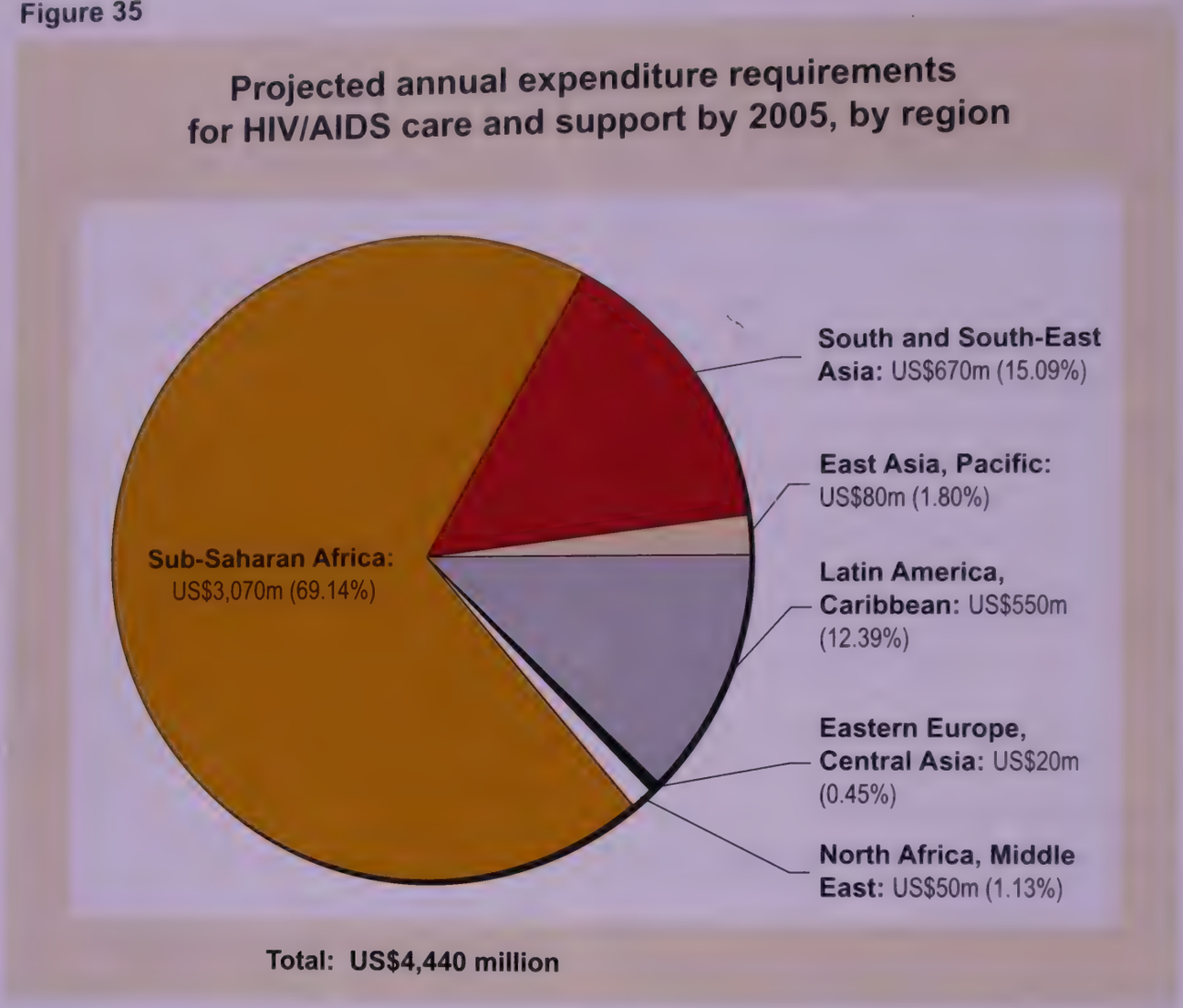
Treatment of active tuberculosis is as effective among those living with HIV as it is among HIV-negative people. However, in the absence of antiretroviral therapy, effective tuberculosis therapy has no long-term effect on HIV disease progression or mortality. It is crucial, therefore, that improved management and control of tuberculosis go hand in hand with increased provision of antiretrovirals and other HIV-related treatment. WHO's Pro-TEST Initiative aims to promote voluntary counselling and testing for HIV as a means of achieving a more coherent treatment, care and support strategy for HIV and tuberculosis in high-HIV-prevalence countries

Infrastructure must support treatment and clinical management

Drug prices are only one of many obstacles to boosting access to HIV/AIDS-related medicines. Effective treatment depends on general health services being able to procure, store, diagnose, select and administer the necessary drugs and to provide related treatment, care and diagnostic services to monitor health status and treatment response. Where health centres and district hospitals are available and accessible, diagnosis of the common infections and complications related to HIV/AIDS (e.g. tuberculosis, pneumonia, diarrhoea and candida infection of the mouth and throat) is usually possible, and these conditions can be treated or palliated with inexpensive, effective antibiotics and basic nursing procedures. However, many communities do not have access to such health-care facilities, and the most basic clinical management is not possible. Alternatives to conventional delivery systems need to be found—for example, the use of health services at the workplace to support delivery where local systems are weak (a development encouraged by ILO).

Two initiatives by WHO aim to improve the ability of low- and middle-income countries to ensure quality control of essential HIV/AIDS drugs and guide their use across a range of settings. The Access to Quality HIV/AIDS Drugs and Diagnostics project completed Phase I in March 2002 and published a list of 16 drugs, including 11 antiretrovirals and both generic and research-based pharmaceutical products, that have met WHO's

Figure 35



Source: Schwartlander B et al. (2001) Resource needs for HIV/AIDS, *Science*

recommended standards. All of these products meet standards for quality and compliance with Good Manufacturing Practices. A further 13 suppliers and 100 products are currently under review. WHO and UNICEF will use this list to advise countries on the procurement of HIV/AIDS-related medicines.

In addition to evaluating the quality of AIDS-related medicines, guidelines on minimum standards for laboratory monitoring of HIV drug treatment, guidelines for antiretroviral use, and training and quality-assessment programmes for health-care workers to ensure correct use of diagnostic tests have been developed by WHO. It is critical that HIV-treatment guidelines for low- and middle-income countries be clear, concise and suitable for rapid implementation.

The widespread provision of antiretroviral therapy in communities most affected by the epidemic would radically change the AIDS-care landscape by greatly reducing the need to treat opportunistic infections, and the amount of time spent on provision of care in homes and hospitals. The need to build and improve infrastructure to support antiretroviral treatment becomes even more urgent, given the prospect of rising demand for such treatment. In addition to trained staff, basic facilities should be available to monitor potential drug toxicity and to measure the efficacy of antiretroviral treatment. Although drug prices have

fallen, most tests routinely used in relation to antiretrovirals are expensive and not widely available. Viral load tests (to measure viremia, or the amount of HIV in the blood) cost an average of US$100, excluding equipment and laboratory facilities. The least expensive flow cytometers to monitor CD4+ cell counts (white blood cells that play a crucial role in the functioning of the immune system) cost between US$75 000 and US$100 000, and this does not include the funds needed to hire and train technical staff, maintain or repair equipment, or sample shipment and storage.

In the early stages of enhanced provision of antiretroviral and other HIV-related treatment, most low- and middle-income countries will need to rely on cheaper prognostic measures, such as total lymphocyte counts and standard measures of liver and kidney function.

Research is urgently required for the development and implementation of inexpensive, locally-appropriate technologies to improve the capacity to effectively monitor antiretroviral and other HIV-related treatment in low- and middle-income countries.

The considerable costs of boosting HIV care and support are outlined in Figure 35. These do not include the costs of infrastructure required for delivery of effective HIV treatment.

The challenges of adherence, resistance and toxicity

A frequently-cited concern regarding widespread provision of antiretrovirals in both high-income and low- and middle-income counties is the ability of health systems to ensure patient adherence to complex antiretroviral regimens—in other words, to make sure that patients take all of their medications, as prescribed.

Adherence is a serious issue in all countries, because of the potential emergence of drug-resistant HIV. In the United States of America, a national survey revealed that 14% of cases of newly acquired HIV were highly resistant to at least one HIV drug, and 5.5% highly resisted two or more drugs. In 1995–1998, the corresponding figures were 3.5% and 0.4%.

To help address these concerns, a Global HIV Drug Resistance Monitoring Project was recently established by WHO and the International AIDS Society to monitor regional drug resistance patterns in parallel with the boosting of antiretroviral treatment programmes.

Adherence is also a critical factor in the failure or success of antiretrovirals in reducing HIV viremia to undetectable levels. A study in the United States of America, for example, has shown that successful virologic suppression through the use of combination antiretroviral therapy was highly associated with 95% adherence (i.e., persons taking their medication as prescribed by their doctors over 95% of the time), and that failure to suppress viremia increased dramatically as adherence decreased. The same study revealed that, among the modifiable variables associated with failure, two were significant: active depression and substance abuse, including that of alcohol. Depression and substance abuse have been shown to be significant predictors of poor adherence in a number of studies in high-income countries. These results underline the need for ongoing psychosocial support before and during treatment.

Practical issues related to the antiretroviral treatment regimens themselves, including the

number of doses per day, the number of pills per dose, and dietary restrictions, also contribute to people's ability to adhere. Recently, however, progress has been made towards developing easier-to-manage, less complicated treatment regimens.

An informed observer in Uganda notes the complicated and extremely human set of problems that caused 15–20% of patients receiving antiretroviral therapy to drop out of treatment in 2001: "Too many additional financial burdens, failure to sustain high-income earnings, depreciation of the local currency, donor fatigue of relatives and friends, unpredictability of foreign sources. Beyond these financial aspects of sustainability, compliance is still a major concern: very sick patients can't cope with antiretroviral complexity, improvement reduces the drive to take pills, and too many family advisers on overall care tend to favour alternative therapies".

None of these problems is inherently unsolvable, as has been seen in a number of small-scale projects. A well-known project in the Haitian highlands, based at the Clinique Bon Sauveur and connected with Harvard University, has reported good ongoing responses to antiretroviral treatment, with patients being able to return to work and to care for their children. And *Médecins Sans Frontières*, in nine small-scale antiretroviral treatment projects in Africa, Asia and Latin America, has also found that effective treatment is feasible.

Short- and long-term toxicities have emerged in high-income countries as a further complicating factor in the delivery of HIV treatment. While short-term side effects, such as diarrhoea, nausea, fatigue and rash, can be managed with relatively close monitoring of patient response to treatment, longer-term toxicities may require complex monitoring technologies and other treatment interventions. Chief among these potential long-term complications of antiretroviral treatment are imbalances in blood lipids, liver and kidney function, and diabetes. The potential toxicities of antiretroviral treatment further underscore the need for well-developed health-care infrastructures.

Need for a continuum of care and support

Treatment in the form of drugs is an essential tool in the response to the morbidity and mortality caused by HIV/AIDS. However, it is not the only one. To be able to cope successfully with HIV/AIDS, people living with the virus must have access to a wide range of treatment, care and support options provided across a continuum. This continuum of care should cover individuals' evolving needs as their condition develops and progresses through the various stages of HIV infection.

As depicted in Figure 36, care should be accessible at several points along the continuum—from VCT services, health services (primary, secondary and tertiary health care) and social services, to community-based support and home care. Formal health-care services may refer clients to community-based care organizations, which, in turn, may refer clients to health-care services, when necessary. Within a catchment area, an effective referral system between VCT services, basic hospitals and

Declaration of Commitment

By 2005, develop, and make significant progress in implementing, comprehensive care strategies to: strengthen family and community-based care, including that provided by the informal sector, and health-care systems to provide and monitor treatment to people living with HIV/AIDS, including infected children, and to support individuals, households, families and communities affected by HIV/AIDS [...] (paragraph 56).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

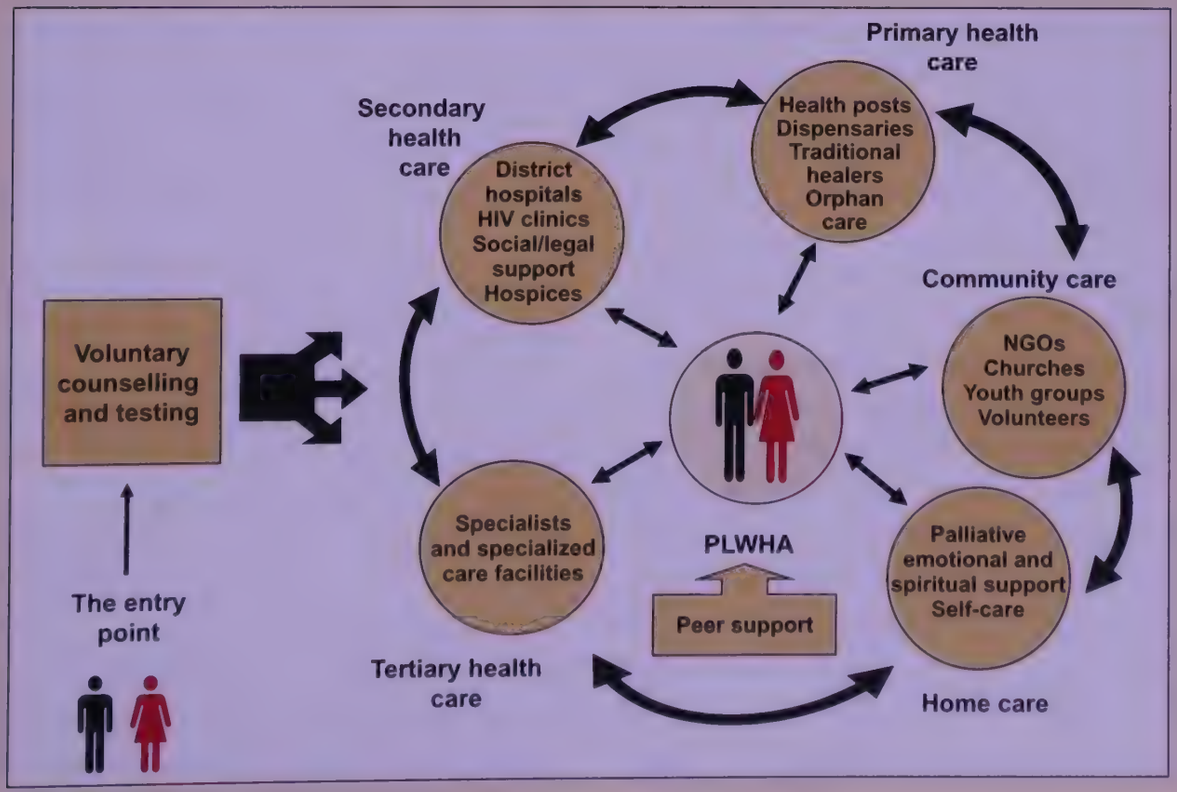
health centres, and home-care services should be developed in the form of partnerships between organizations and institutions.

Home and community care

An essential part of the response to the epidemic has been, and continues to be, home- and community-based care. Community care and support groups have sprung up almost everywhere the epidemic has appeared—from the richest to some of the poorest of countries—and have shown amazing creativity and tenacity in providing comfort and hope to persons living with, or affected by, HIV/AIDS.

Figure 36

The HIV/AIDS continuum of care



Source: WHO/UNAIDS (2000) *Key Elements in HIV/AIDS Care and Support.* Draft working document

Support to home and community caregivers

Support is needed for families carrying the burden of care, to prevent them from unravelling and to enable caregivers to perform other critical tasks apart from that of providing care. Depending on available resources and on the prevalence of AIDS in any given country, such support may feed into existing social security nets, or it may call for the creation of new funding mechanisms (see 'Meeting the need' chapter). But some countries have few social safety nets beyond those provided by family resources, which severely hampers their capacity to absorb any new funding that might become available.

In cases where responsibility for services is being decentralized to community level, administrative requirements regarding disbursement of funding to community-based organizations have frequently delayed implementation. A number of innovative financing methods are being used to overcome this problem. In Zimbabwe, for example, in order to speed up disbursement of funds and to ensure that they reach the intended beneficiaries, funds from the National AIDS Trust Fund are now disbursed to District AIDS Committees after the National AIDS Council has approved their plans. The funds are then channelled to Ward AIDS Committees' bank accounts. All wards have opened accounts with commercial banks to which three members are signatories: the district/urban councillor, the traditional chief and the local school principal. All three signatories are in positions of authority, entrusted with making sure that resources for the National AIDS Trust Fund reach the appropriate people.

Greater support to nongovernmental organizations and community-based organizations that provide community-based care is critical if home and community care is to become a truly significant part of the continuum of care. Approaches such as that of Ecuador's Programme for AIDS Initiatives (*Programa de Initiativas Frente al SIDA*) prove invaluable in building the capacity of community projects and nongovernmental organizations. The Programme links and supports community HIV prevention and care programmes throughout the country. It also assists nongovernmental and community-based organizations already working with women and in local development (but with no experience in AIDS) to assess the AIDS-related needs of their communities, and to begin, or take over, AIDS-related work. For example, it has helped a leading reproductive health nongovernmental organization in Ecuador to include prevention of sexually transmitted infections and HIV in its clinics' educational programmes and family planning counselling. Other organizations have been helped to improve their fundraising or administrative capacity—often a weak point with community-based organizations.

An important lesson learnt over the past decade is that national HIV/AIDS responses cannot reach the necessary scale, maintain quality, or provide sufficient flexibility by acting solely through centrally-operated programmes. However, when national programmes work in partnership with nongovernmental and community-based organizations, a great deal can be accomplished. An example of such collaboration is the Continuum of Care Project in India's Manipur State. Its cooperative approach links nongovernmental and community-based organizations (including World Vision, Sneha Bhavan, Manipur Network of Positive People, and the Kripa Society) to gov-

ernment health services, and permits many people (particularly those who are hard to reach) to access services they might otherwise be unaware of or shun.

Working with traditional healers and pharmacists

Since many people do not seek health care from formal health-care systems, it is important to find ways of integrating alternative health care more positively into the continuum of care. In Africa, it is estimated that about 80% of people rely on traditional medicine for their health-care needs, both in urban and rural settings. Many public health experts conclude that it makes sense to build collaboration between the formal health systems and traditional healers. In both Africa and Asia, such collaborative projects have been successfully designed, planned, implemented and evaluated.

Collaboration with traditional healers can also help dispel the many myths that prevail in some low- and middle-income countries about the causes of HIV/AIDS, as well as countering spurious claims about 'miracle AIDS cures'.

A frequently-used strategy has been to train a core group of traditional healers, who are then supported in their efforts to educate communities or train their peers.

Many people in low- and middle-income countries visit their pharmacist when symptoms of opportunistic infections first appear. But pharmacists' qualifications and training can vary widely. In Cambodia, it is known that many HIV-positive people go directly to pharmacies for drugs. Around four-out-of-five Cambodians live in rural areas—far from the two Phnom Penh hospitals that offer HIV/AIDS treatment for the nation's AIDS patients—and few can afford to visit a private clinic. In contrast, there are thousands of pharmacies in rural towns and villages. (Phnom Penh itself has about 300.) Knowing this, the international non-profit organization, PATH, has been working with the Cambodian Government, the national pharmacy association and local nongovernmental organizations to teach pharmacists about sexually transmitted infection identification, as well as treatment, counselling and dispensing. A pilot programme has also been created whereby pharmacists can provide patients

Traditional and modern health practitioners: together against AIDS

In Uganda, two nongovernmental organizations, the Ministry of Health and the National AIDS Commission have been working since the early 1990s in an initiative called Traditional and Modern Health Practitioners Together against AIDS. It trains traditional healers with a curriculum that covers not only sexually transmitted infections and AIDS, but also cultural beliefs and practices, counselling, leadership, sexuality, gender and legal issues. The initiative has been expanded to six rural districts of Uganda. An evaluation in 1997–1998 showed that 60% of trained traditional healers reported distributing condoms (compared to 9% of untrained traditional healers). Other benefits included initiation of record-keeping, initiation of patient-support groups and improved collaboration with biomedical health practitioners.

Declaration of Commitment

By 2003, ensure that national strategies are developed in order to provide psychosocial care for individuals, families and communities affected by HIV/AIDS (paragraph 57).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

with coupons directing them to a health-care facility at a specific time and place, thus establishing a direct link to the formal medical system.

Psychosocial support: critical in the continuum of care

Counselling, spiritual support, support in disclosing one's seropositive status and for engaging in safer sex or abstinence, medication adherence, end-of-life and bereavement support, and practical economic assistance are all part of psychological support for those living with or affected by HIV/AIDS. Mitigating the devastating impact of AIDS on people's personal lives, their social interactions and income have, in the past, been sufficient reason for providing such support. Yet psychosocial support is also crucial to the success of medical treatment—an issue of increasing importance as more and more HIV-positive people gain access to antiretrovirals.

The greater involvement of people living with HIV/AIDS (GIPA) is critical in the provision of psychosocial care, and such involvement should be an integral part of care and support programmes. HIV-positive peer support programmes have demonstrated success around the globe, with little cost to health-care systems, in providing psychosocial care to help those living with HIV/AIDS. In South-East Asia and in many other areas, there is considerable evidence of the psychological benefits of self-help clubs for HIV-infected and -affected people. Such clubs (and other support groups) can also be very useful in providing or advocating social and economic support such as vocational training, small projects, and funds for personal health insurance. The AIDS Support Organisation of

Showing the way

Among the many innovative home-based care projects is that of Hua Rin, a Buddhist temple located near Chiang Mai, Thailand, which houses a group of 35 women living with HIV/AIDS. Phra Athikarn Thanawat Technopanyo, the temple's abbot, founded the support-group project in 1993 in order to educate villagers about HIV/AIDS through Dharma teachings, as well as to decrease the stigmatization of the families affected. Known as the Prasarnjai Group, the women arrange various projects that, for example, help grandparents care for their orphaned grandchildren, or provide small-scale jobs for widows and infected women. Meanwhile, the monks disseminate HIV/AIDS knowledge and information throughout the community, promote income-generating activities and tend to people's physical and spiritual needs.

Uganda (TASO) has become a world leader in this area. Its AIDS Challenge Youth Club is a peer AIDS prevention and care project that provides counselling and other support services to people living with HIV/AIDS.

Improved nutrition

The inclusion of nutrition as a core part of any HIV-care package is essential. The current focus on increasing access to antiretroviral drugs in low- and middle-income countries should not obscure the fact that, for much of the world's population living with HIV, the need for food remains an overwhelming priority.

Nutrition and AIDS operate in tandem, both at the individual and the societal level. Nutritional deficits make people with HIV more susceptible to disease and infections of all sorts. And malnutrition is one of the major clinical manifestations of HIV infection.

At the household level, HIV/AIDS and food security are closely linked: a HIV-affected household increasingly risks food insecurity and malnutrition via declines in work, income and time available for care of younger children, together with increased expenses for health care. Food insecurity may, in turn, further increase both the risk of being exposed to HIV and a household's vulnerability to its increasing impact as the disease progresses.

Nutrition is also linked to treatment. As access to antiretrovirals improves, clean water supplies and adequate food must be made available as part of an overall treatment, care and support package.

TASO has been distributing food to clients for 10 years as part of an overall community outreach response in Uganda. Food assistance has proven to be a powerful means of attracting clients to other HIV services, including voluntary counselling and testing. In addition, this form of assistance has proven to greatly facilitate nutritional counselling and education for TASO clients throughout Uganda. And the World Food Program is using food aid to provide an incentive for children to stay in school; building on the success of its take-home rations and school-based feeding projects for girls, it is implementing a similar strategy for orphaned children. Already, the agency manages projects for these children in Cambodia, Kenya, Uganda and Zambia.

Enhancing treatment, care and support: the way forward

There is growing recognition at the highest levels of political and economic power that ensuring a stable, secure future for the world requires a massive boosting of interventions aimed at improving the health of the poor worldwide. Significant efforts have been made to assess what is required, how it must be done, and how much it will cost.

This groundswell of political and economic opinion converges with the increasing determination among decision-makers and communities alike to make decisive inroads against the epidemic by paying equal attention to HIV prevention and HIV care.

Many of the constraints in place that prevent improved health systems and improved access

to HIV care in the world's poorest countries can be overcome with additional funding. Such constraints include the currently low levels of expenditures on health by low- and middle-income countries, limited numbers of qualified health personnel, weak infrastructures, limited drug supplies, etc. Additional finances are crucial to ensuring the success of HIV/AIDS treatment, care and support programmes throughout the world.

As increased resources become available to enhance HIV/AIDS treatment, care and support, expenditure will need to be closely linked to evidence of good governance, including respect for the rights of people living with HIV/AIDS. Corruption, poor rule of law and armed conflict are among the greatest barriers to ensuring that resources reach those in need.

The ongoing development of treatment, care and support plans of action by the coordinating bodies of individual countries, collaboration across regions, and the efforts of international governmental and nongovernmental organizations are helping to improve the response to HIV/AIDS. The continuing AIDS-related death toll is a constant reminder of the urgency of the task—a task that requires simultaneous action in technical guidance, political support, resource mobilization, infrastructure-building, and human capacity development.

Above all, the unswerving commitment of people living with HIV/AIDS and their supporters is ensuring that the worldwide demands for access to effective treatment, care and support will not go unanswered.

Meeting the need

Meeting the need

The AIDS epidemic knows no bounds. It defies international borders and transcends socioeconomic, political, ethnic and other divides. It is a global threat that requires global action—not least in ensuring that sufficient resources reach those countries and communities most in need. At the moment, this is patently not the case.

As of mid-2002, aggregate spending for HIV/AIDS in 2002 was projected to approach US$3 billion in low- and middle-income countries, much of it underwritten by international assistance. In the most heavily affected region (sub-Saharan Africa), international spending on HIV/AIDS has risen well above the US$165 million figure documented in 1998—a trend projected to continue in 2002. In the past few years, domestic spending on HIV/AIDS has also increased significantly in many countries.

But much more needs to be done. The mismatch between need and funding is one of the biggest obstacles to controlling the epidemic. Most poor countries still struggle to boost their spending, even to levels that fall far short of the need. If current budgetary trends continue, donor support in 2003 will still be much less than the bare minimum required for basic prevention and care programmes.

Despite the fact that millions of people living with AIDS are being impoverished even further by the epidemic (see 'The mounting impact' chapter), many of them have to pay for their own care. It is a virtual certainty that out-of-pocket spending (which, in 2000, represented 22% of total HIV/AIDS spending in the eight countries studied in the SIDALAC project) accounts for a considerable share of overall AIDS spending everywhere, especially among the poor. (Out-

7

Declaration of Commitment

By 2005, through a series of incremental steps, reach an overall target of annual expenditure on the epidemic of between US$7 billion and US$10 billion in low- and middle-income countries and those countries experiencing, or at risk of experiencing, rapid expansion for prevention, care, treatment, support and mitigation of the impact of HIV/AIDS [...] (paragraph 80).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

A picture of spending in Latin America and the Caribbean

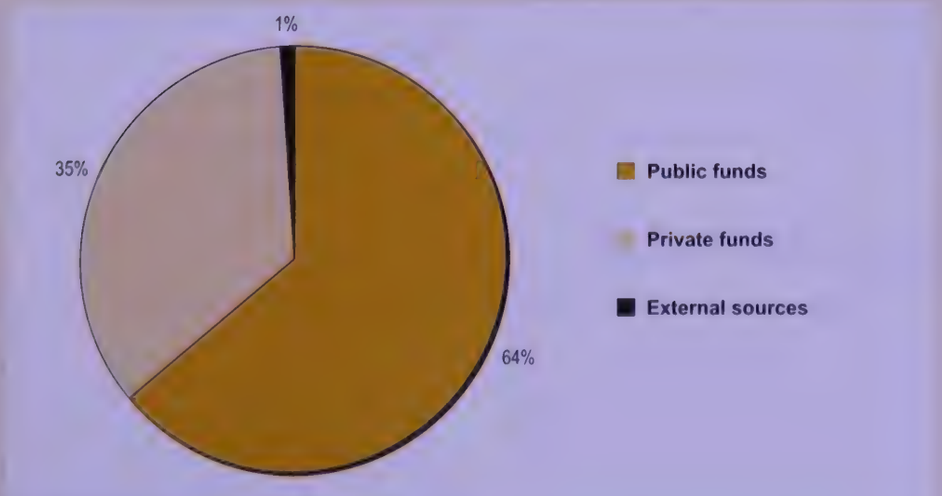
The SIDALAC project, with support from UNAIDS, the European Union and other donors, has compiled data on HIV/AIDS spending in eight countries in the Americas (Argentina, Bolivia, Brazil, Chile, Costa Rica, Mexico, Peru and Uruguay), which collectively account for 70% of the total population in Latin America and the Caribbean. In 2000, these countries spent a total of US$1.8 billion on HIV/AIDS. If weighed against their total gross domestic product of US$2759 billion, their HIV/AIDS spending amounted to less than 0.1% of total output.

Brazil, a country noted for its multisectoral public sector response to the epidemic, spent just under US$3 per capita on antiretroviral therapy in 2000—slightly less than the US$4–5 per capita that Argentina and Chile spent.

For the eight countries as a whole, spending on antiretroviral drugs accounted for just over half of total spending on HIV/AIDS; 30% went on other personal health services for people living with HIV/AIDS; and 17% was devoted to public health and prevention efforts. The latter figure may seem low, given the widely acknowledged benefits of prevention and public health, but it is of note that, for example, the United States Federal Government allocated only 7.8% of its total HIV/AIDS spending to prevention in 2000.

The public share of total HIV/AIDS spending varied widely between countries, from a low of only 2% in Bolivia, to much higher shares of 57% in Argentina, 68% in Costa Rica, 79% in Brazil, and 86% in Mexico. None the less, HIV/AIDS did not impose an impossibly large burden on the budgets of the health ministries of any of these countries. For Argentina and Brazil, HIV/AIDS used 2–3% of the public health budget. For the other countries, the burden on public health spending was 1.5% or less of the total.

Public, private and donor funding for HIV/AIDS, in selected Latin American and Caribbean countries*: 2000



* Argentina, Bolivia, Brazil, Chile, Costa Rica, Mexico, Peru and Uruguay

Source: FUNSALUD, SIDALAC, UNAIDS, 2001

Figure 37

of-pocket spending is the money individuals themselves spend on HIV/AIDS services.) Among the few prominent exceptions is Brazil, where out-of-pocket HIV/AIDS spending is a low 6%, thanks to strong public funding.

By contrast, private, out-of-pocket spending in Rwanda, for example, accounted for 93% of total HIV/AIDS spending in 1998–1999, and only 7% came from government and donors. Such high dependence on out-of-pocket spending, particularly when it is the poor who are paying, is of grave concern. It is imperative that new ways be found to reduce the share of total AIDS spending by the poor. One way is to boost support to public health care and other social services, as part of broader, poverty-focused programming. This, in turn, reinforces the need for a fairer distribution of resources, not just nationally but globally.

Measuring the gap

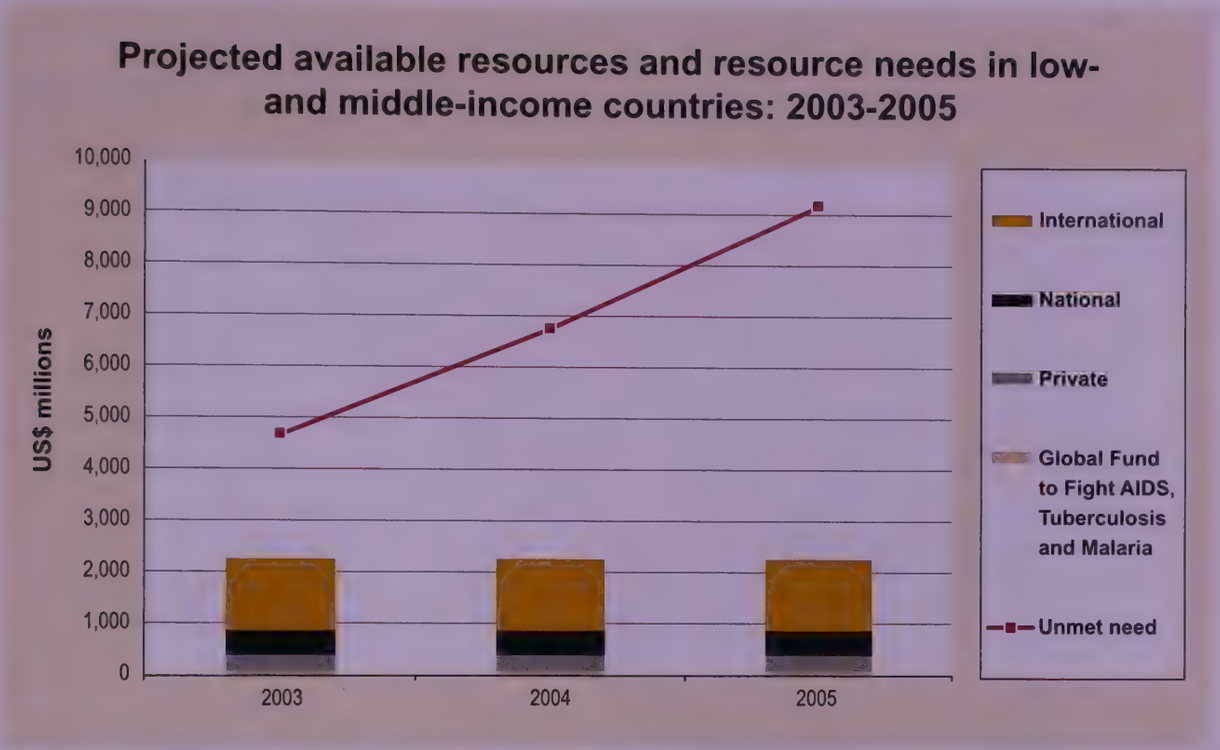
A detailed calculation of the estimated total financial need in low- and middle-income countries for HIV/AIDS, done by an international team convened by the UNAIDS Secretariat, has shown that, in 2005, US$9.2 billion will be required. That amount is several times greater than the spending projections for 2002 in low- and middle-income countries. A sustained increase therefore has to be achieved, with annual spending rising progressively to an annual total of US$9.2 billion in 2005. Of that amount, US$5.4 billion is required for countries with a gross domestic product of less than US$2000 per person. This projected, staggered rise in spending assumes that many countries cannot immediately mount the entire range of activities needed. Indeed, most countries would take several years to build up the human and infrastructural capacity to programme their expanded responses. These projections are based on conservative estimates of possible costs for each of the 18 prevention, treatment and care services used in the calculations of overall resource needs, and do not include costs for building up infrastructure.

If expenditures on AIDS were to remain at current levels, the funding shortfall would grow to at least US$7 billion by 2005 (see Figure 38), unless significant amounts of additional funding become available. (The respective contributions shown in this graph are based on current trends and pledges.)

Meeting the need

It is estimated that, overall, between one-third and one-half of the required funding could come from domestic private and public sources. Certainly, national ownership and responsibility are vital ingredients for effective AIDS responses, and the list of countries that devote significant funds towards combating the epidemic has grown considerably in recent years. In addition, the Abuja Declaration, adopted at the Organisation of African Unity's special summit on AIDS in 2001, included a pledge that 15% of national budgets would

Figure 38



Source: Adapted from joint WHO/UNAIDS presentation, 27 January 2002, Geneva

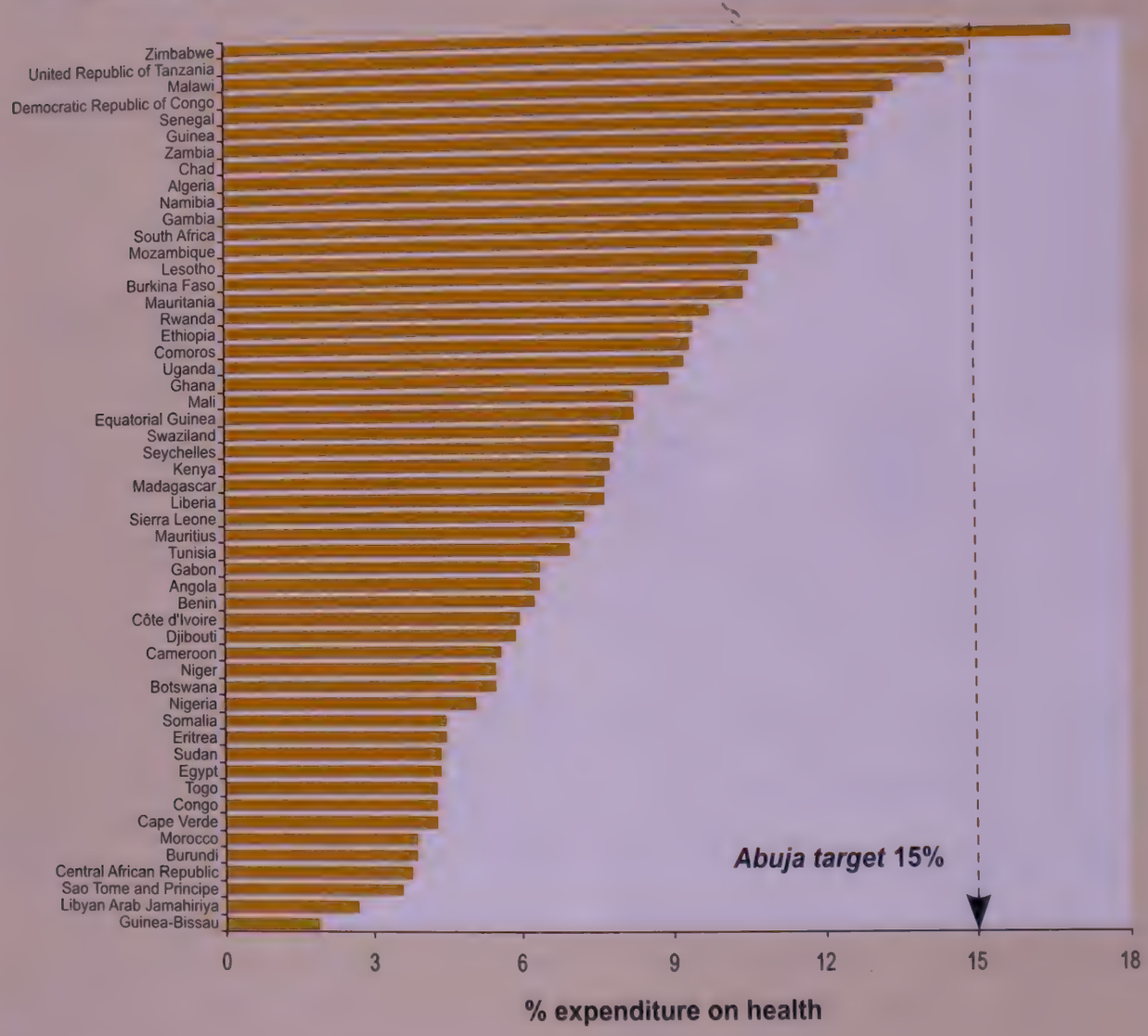
be allocated to health spending. As Figure 38 shows, this would require a significant increase in spending for several countries.

But many of the worst-affected countries rank among the poorest in the world, and are unable to finance their entire HIV/AIDS efforts domestically. National AIDS programme managers, health directors and health ministers from 14 sub-Saharan African countries in 2001 pinpointed the funding gaps their countries faced. In each of six of the countries (Kenya, Lesotho, Malawi, the United Republic of Tanzania, Uganda and Zimbabwe), the gaps ranged from US$50 million to US$200 million. Measured against the countries' limited tax bases and low income levels, the shortfalls highlight the need for greater donor assistance. Up to 80% of total resources needed in sub-Saharan Africa and South and South-East Asia will have to come from international sources. This funding shortfall cannot be met from a single source. Several distinct sectors are involved in responding to AIDS, each of which has its own comparative advantages.

International donors account for approximately two-thirds of budgeted HIV/AIDS spending in 2002 in low- and middle-income countries, the bulk of it in the form of Official Development Assistance. In addition to providing funding, many donor countries can also draw on domestic technical resources and help build solidarity directly between their own communities at home and those in the recipient countries (e.g., through the networks of non-profit organizations). Figure 40 summarizes budgeted 2002 HIV/AIDS spending from a variety of international sources.

Figure 39

Public expenditure on health as percentage of general government expenditure in African countries: 1998

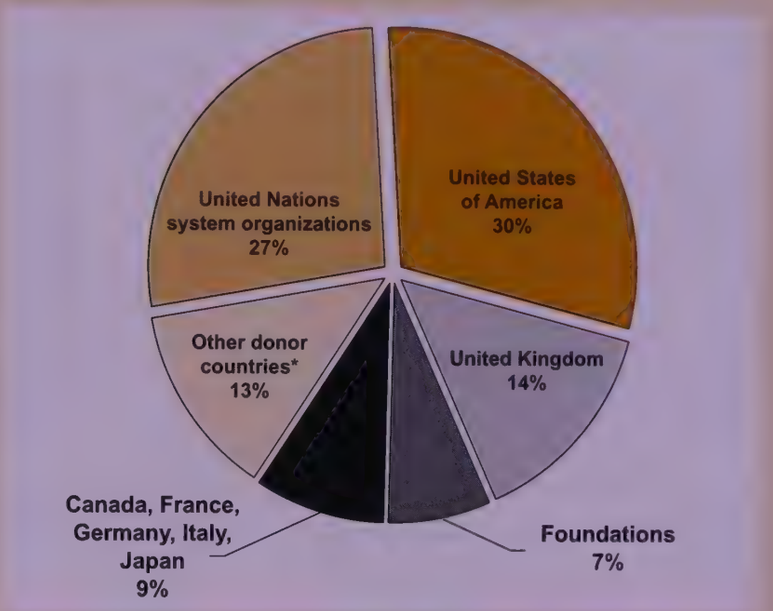


Source: WHO (2001) *World Health Report*

Multilateral organizations represent another important channel of assistance. They are well placed to ensure that internationally accepted scientific and technical standards are applied, to help promote consensus on the effective approaches, and to help AIDS programmes achieve longer-term financial sustainability. Agencies such as UNDP, UNFPA and UNICEF, for example, are also important channels for deploying funding from bilateral donors in countries where they lack programming capacity.

Figure 40

Documented available international resources for HIV/AIDS: 2002



*Members of the Development Assistance Committee of the OECD

Source: UNAIDS, 2002

A range of major international foundations have substantially increased their support for population activities—from US$99.3 million in 1995 to an estimated US$539 million in 2000. Many of the activities relate to sexual education, condom provision and other HIV/AIDS-related programmes. The Bill and Melinda Gates, Rockefeller, Ford, Marie Stopes, Kaiser, and United Nations Foundations, and the Open Society Institute, among others, are all active in international HIV/AIDS programming.

The newest funding channel is the Global Fund to Fight AIDS, Tuberculosis and Malaria. Its comparative advantage is the ability to rapidly direct new resources towards programmes that hold the best chances of success, in the countries with the greatest need.

The Global Fund to Fight AIDS, Tuberculosis and Malaria

Operating since January 2002, the Global Fund to fight AIDS, Tuberculosis and Malaria was set up as a financial instrument to complement existing funding for programmes addressing HIV/AIDS, tuberculosis and malaria. The Fund concentrates on generating additional resources and making them available at the community and country levels.

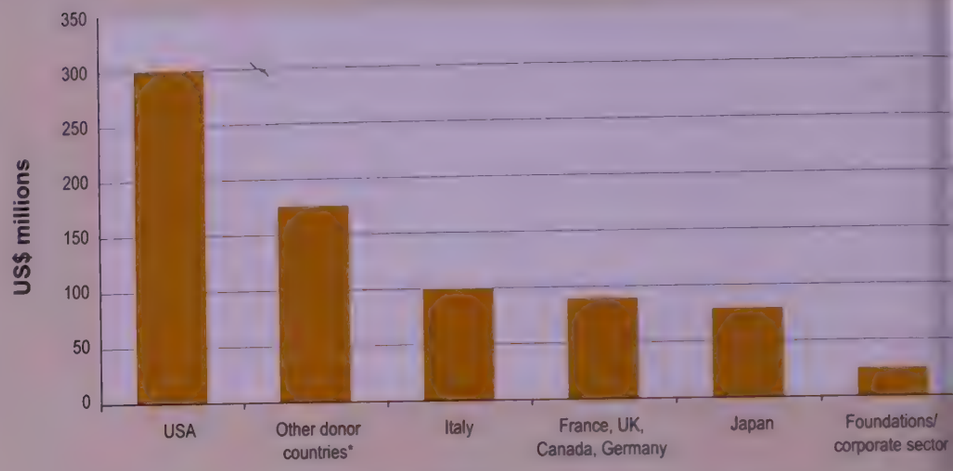
As a public-private partnership, the Fund's Board includes official country representatives (from North and South), as well as representation from the business sector, non-governmental organizations and communities directly affected by the epidemic. The UNAIDS Secretariat, together with two of its Cosponsors (WHO and the World Bank), are nonvoting members of the Board. The Fund coordinates its activities with governments, civil society, nongovernmental organizations, UNAIDS, the private sector, and donor agencies.

Total pledges to the Fund stood at just under US$2 billion in April 2002. Most of the pledged funds came from the Official Development Assistance budgets of donor countries, and from the endowments of major philanthropic organizations. Figure 41 summarizes donor pledges to the Fund, as of April 2002. In its first grants, announced in the same month, the Fund committed more than US$616 million over two years to support programmes in over 30 countries to combat AIDS,

tuberculosis and malaria. Around 60% of these funds will support HIV/AIDS prevention and treatment programmes, and most of these grants specifically include funding to purchase antiretroviral treatment. A further 15% of funds will go to programmes to fight AIDS, together with malaria and/or tuberculosis.

Figure 41

Identified available resources for the Global Fund to Fight AIDS, Tuberculosis and Malaria, by source, as of April 2002



* Other member countries of the Development Assistance Committee of the Organisation for Economic Cooperation and Development and the European Union

Source: Joint WHO/UNAIDS presentation, 27 January 2002, Geneva

The Multi-Country HIV/AIDS Program for Africa

Managed by the World Bank, the Multi-Country HIV/AIDS Program for Africa came into effect in 2001. The Program takes the form of large, zero-interest loans to support governments over several years—loans that are largely channelled as grants to communities and civil society organizations. The emphasis is on increasing access to HIV/AIDS prevention, care, support and treatment programmes (with an emphasis on vulnerable groups), as well as mitigating the impact of the epidemic. Financed to the tune of US$500 million, the first stage was approved by the World Bank in September 2001, and is now supporting 13 countries in sub-Saharan Africa. In February 2002, the Bank provided US$500 million more, which is expected to support another 12–15 countries. In addition to country programmes, it is intended to support subregional and cross-border initiatives—for example, those targeting major transport routes such as the Abidjan-Lagos Corridor (see 'Focus: AIDS and mobile populations').

A similar initiative is now also under way in the Caribbean. Totalling US$155 million, the Multi-Country HIV/AIDS Prevention and Control Project for the Caribbean works as a five-year loan programme that allows countries to obtain separate loans or credits to finance their national HIV/AIDS prevention and control projects. By April 2002, about US$40 million had been allocated to projects in Barbados and the Dominican Republic.

Debt relief

Reducing the debt burdens of poor countries also has the potential of boosting the AIDS response where it is most needed. The debts of the 38 highly indebted poor countries (HIPC) (33 of them in Africa) amount, on average, to more than four times their annual export earnings. These debt burdens mean that annual debt-servicing obligations can undermine countries' social spending, including that required for their HIV/AIDS and orphans responses. In 16 African countries in 2001, governments were still spending more on servicing debts than on the health of their citizens. The HIPC debt initiative, devised by

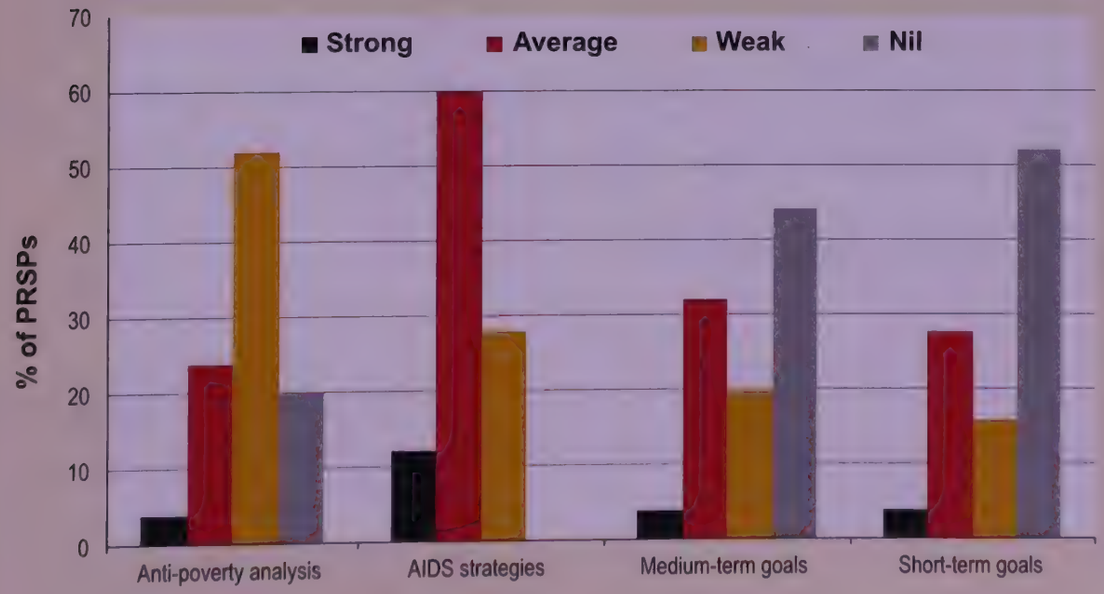
the World Bank and International Monetary Fund, is one attempt to relax those constraints and enable countries to allocate more resources to social development. Under the initiative, eligible countries qualify for debt relief if they meet certain conditions, including the adoption of economic adjustments and the drafting of poverty-reduction strategies in which social spending is given priority. Applicant countries are encouraged to include HIV/AIDS programmes in these strategies. UNAIDS and its Cosponsors are working to provide technical and other support to help countries integrate HIV/AIDS into poverty-reduction strategies.

Although only a few countries had completed the entire HIPC process by early 2002, 24 countries had reached the first of the two stages in this debt-relief process (the so-called 'decision point'), putting them in line for debt reduction. In those cases, debt relief could free significant sums of money for spending on public health care.

Initial indications are that, on average, HIPCs will spend about 25% of their annual interim debt relief on health care. As for AIDS, data from 10 low-income African countries from this group (Benin, Burkina Faso, Cameroon, Madagascar, Mali, Mauritania, Mozambique, Uganda, the United Republic of Tanzania, and Zambia) suggest that, together, they were budgeting some US$32 million for AIDS activities, or about 5% of their HIPC savings, in 2001.

Figure 42

How effective are poverty-reduction strategy papers (PRSPs) in tackling AIDS?



Note: Based on 5 full and 20 interim poverty-reduction strategy papers from Africa, as of November 2001

Source: Hecht R et al. (2002) Making AIDS Part of the Global Development Agenda, *Finance and Development*

The UNAIDS Secretariat has reviewed the first generation of 25 full and interim Poverty-Reduction Strategy Papers prepared by sub-Saharan African countries to gauge how well they were dealing with HIV/AIDS (see Figure 42). The review was based on four criteria:

- analysis of the relationship between AIDS and poverty has been carried out;
- the main strategies from the country's national AIDS plan feature in the povety-reduction strategy papers;
- medium-term AIDS prevention and care goals and indicators for monitoring poverty are used; and
- short-term initiatives to fight HIV/AIDS (that can be monitored) have been incorporated.

In some other HIPC countries, however, little or no money from debt-relief proceeds has been specifically allocated to HIV/AIDS. In addition, this source of funding is not available to several low- and middle-income countries that are experiencing severe HIV/AIDS epidemics. Currently ineligible for debt relief under the HIPC Initiative are 16 countries where adult HIV prevalence exceeded 1.5% in 2001. They include several sub-Saharan African countries where HIV prevalence was above 20%.

The business sector

The business sector also has an important role to play in funding an expanded response. Approximately 7% of the total resource need is for workplace prevention programmes, which private enterprises can fund. The scale and range of business involvement in the fight against AIDS are growing, but they are still only a fraction of their potential. Showing the way, meanwhile, are AIDS-related business initiatives that capitalize on key business strengths. For example, UNAIDS is working with MTV to help bring awareness to teenagers around the world. In Asia, the Thai Business Council has teamed up with the Thai Red Cross and other partners to integrate HIV/AIDS into the standard curricula taught to merchant sailors in maritime colleges. Debswana, in Botswana, has introduced prevention, treatment and care services for its employees and their spouses, effectively reducing HIV incidence, especially among its youngest workers (see 'Focus: AIDS and the world of work').

The bigger picture

Such innovations are helping countries significantly enhance their AIDS responses. But their longer-term impact is likely to be limited if the global distribution of resources and economic opportunities remains as unequal as it is today.

Unfortunately, resource transfers to low- and middle-income countries from both public and private sources are still declining. Much stronger aid flows are essential for poorer countries to build and sustain comprehensive AIDS responses. Yet, levels of Official Development Assistance are at their lowest point in two decades. In 2000, only four high-income countries were living up to the 1970 commitment to raise these development aid levels to 0.7% of gross national product. Levels for most of the wealthiest countries were under 0.3%, drop-

Declaration of Commitment

Urge the international community to complement and supplement efforts of developing countries that commit increased national funds to fight the HIV/AIDS epidemic through increased international development assistance, particularly those countries most affected by HIV/AIDS [...] (paragraph 84).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

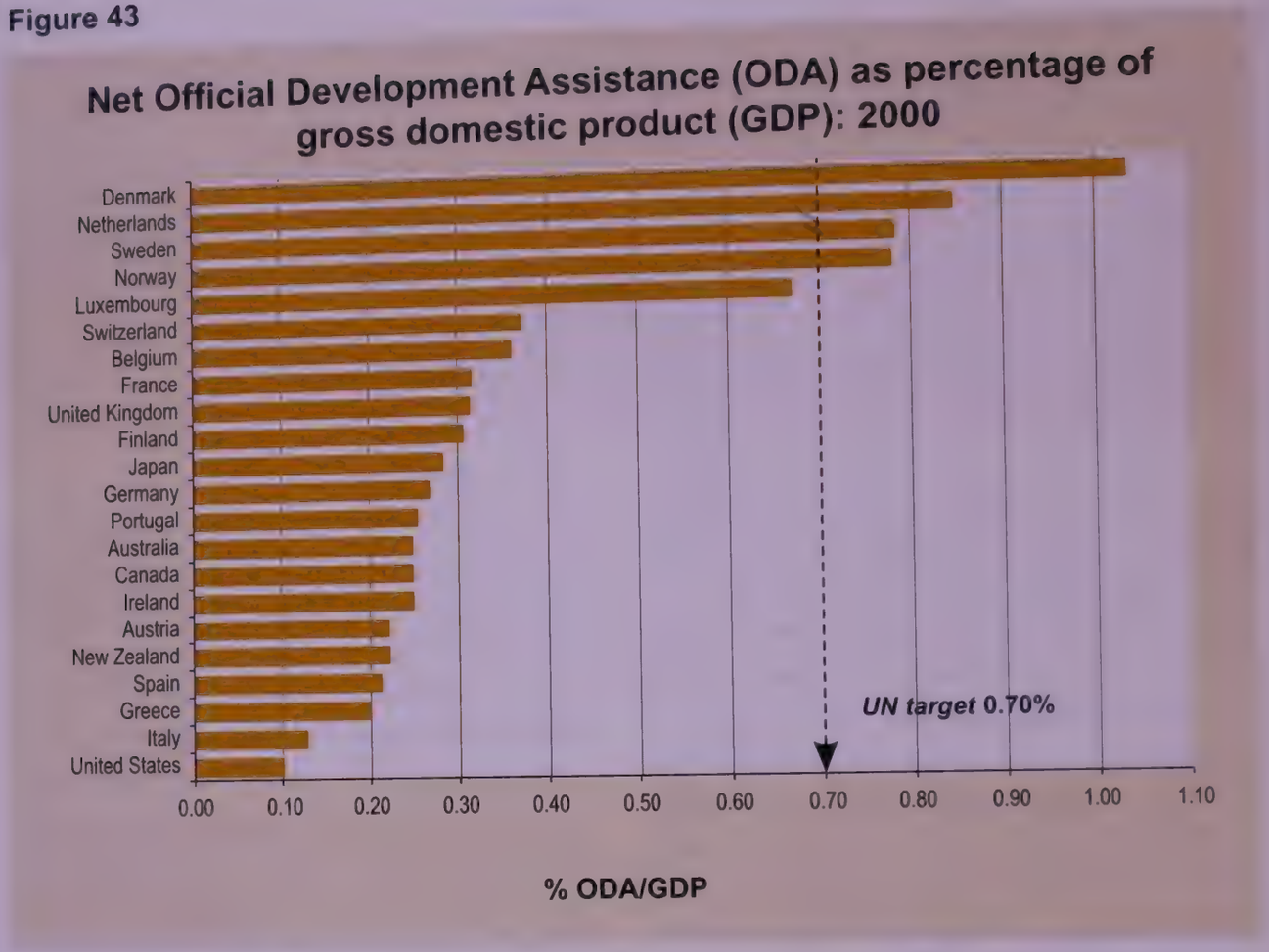
ping as low as 0.1% in one case, as Figure 43 illustrates. Assistance to Africa as a whole has fallen dramatically, from US$36 per person in 1990 to just US$20 in 1999. According to UNDP estimates, assistance to the 28 countries most seriously affected by AIDS (countries with adult HIV prevalence exceeding 4%) fell by one-third between 1992 and 2000. The World Bank estimates that an additional US$40–60 billion in foreign aid is needed annually, along with policy and institutional improvements, if countries are to reach the socioeconomic targets outlined in the Millennium Development Goals by 2015.

Other approaches can boost the global AIDS response and help redress the kinds of conditions that leave people vulnerable to the epidemic and its effects. Commercial creditors, including multilateral lenders, can forgive much larger shares of debts owed by poor countries, many of which have already paid back amounts that far surpass the original principal borrowed. Positive changes to multilateral regulatory systems can help establish fairer global trade relations, and win greater market access for goods and services produced in low- and middle-income countries. Measures that encourage fairer and less volatile capital flows, too, can assist countries' efforts to boost their economies and improve socioeconomic conditions. For example, the inflow of foreign direct investment to all of sub-Saharan Africa in 2000 represented a mere 0.4% of the global total (down from 0.6% in 1999). Ample scope exists, therefore, for helping and enabling countries to pursue sustainable development strategies that reflect citizens' essential needs.

Making it count

The majority of low- and middle-income countries now have detailed plans for dealing with AIDS, and almost all of them have costed those plans. In order to ensure success, increased financial investment will have to be matched with investment in human resource and institutional capacities. Improved governance and efficiency of resource transfer mechanisms will be required for AIDS spending to flow efficiently to the levels where it is most needed (see 'National responses' chapter).

Figure 43



Sources: For GDP data, OECD, *National Accounts of OECD Countries*, Volume 1, for ODA data, OECD

Countless communities are ready to take action. The new funding innovations being devised remind us that the world's capacity to rise to the HIV/AIDS challenge is far from exhausted. But, set against the colossal needs, these types of efforts will need to be multiplied many times over if the world is to close the resource gap.

National responses: turning commitment into action

National responses: turning commitment into action

Two decades into the HIV/AIDS epidemic, a great deal of experience has been gathered on how to respond effectively to the epidemic. Nationally, leaders are committing themselves and their administrations to fighting AIDS at successive levels, down to, and including, neighbourhoods and community associations. This political commitment is being translated into action as institutional structures are reorganized and mobilized to join the AIDS response. More resources are being deployed. And national efforts are linking up across borders.

Political commitment: where deeds and gestures meet

A mere six years ago, when UNAIDS was beginning its advocacy work with governments in various parts of the world, it was often difficult to draw the attention of top-level political leaders to HIV/AIDS. The pressure of many other priorities and the sheer lack of information meant the epidemic was seen mainly as a medical matter to be handled by health ministries.

Now, however, presidents and prime ministers throughout Africa, the Americas, the Caribbean, Asia and Eastern Europe are publicly displaying personal commitment to the fight against AIDS. They have recognized that AIDS is not just a health issue; it is fundamental to development, progress and security. In Africa, for example, the Heads of State from several countries (including Mali,

8

Declaration of Commitment

By 2003, ensure the development and implementation of multisectoral national strategies and financing plans for combating HIV/AIDS that address the epidemic in forthright terms [...] (paragraph 37).

United Nations General Assembly Special Session on HIV/AIDS, June 2001, New York

Nigeria, Rwanda, South Africa and Uganda) have come together to form AIDS Watch Africa. An example of peer education at the highest level, this initiative enables members to alert other Heads of State to the threat AIDS poses to development, and to encourage them to tackle the epidemic.

This high-level political commitment has acquired more than symbolic weight. In country after country, rapid advances have been made when presidents and prime ministers took control of the AIDS response, often chairing the national coordinating bodies dedicated to dealing with the epidemic. But the symbolic value of stirring declarations of commitment is also important, for it sounds the alarm, helps spur people to action, and generates hope among those who might have felt marginalized by a disease few talked about publicly. Ukrainian President Leonid Kuchma, for example, has moved his country's response forward considerably by declaring 2002 his country's 'Year against AIDS'.

Reaching across borders

The understanding of AIDS as a human security issue, along with widespread concern about the negative effects of globalization, has brought home to governments the message that AIDS is truly a global problem that calls for global responses. Political commitments are being made not just at the national, but also at the regional, level.

An example is the Pan-Caribbean Partnership on HIV/AIDS. Launched at the February 2001 meeting of the region's Heads of State, the partnership links the resources of governments and the international community with those of civil society to boost national and regional responses. Operating as part of the Caribbean Community Secretariat (CARICOM), it includes regional partners such as the Caribbean Network of People Living with HIV/AIDS, the Caribbean Development Bank and the University of the West Indies.

Across the ocean, the International Partnership against HIV/AIDS in Africa is harnessing the strengths of its five stakeholder groups (governments, bilateral donors, civil society, the private sector and the United Nations) to advocate enhanced, coordinated efforts to fight the disease. The Partnership encourages the creation of inclusive 'partnership forums' at the country level, and has been instrumental in continent-wide events such as the African Development Forum's discussions of AIDS in 2000, and the Abuja Summit in 2001.

The Indian Ocean Partnership against AIDS, meanwhile, brings together the island nations of Comoros, Madagascar, Mauritius, the Seychelles, and the French overseas territory La Réunion. Centred on the Indian Ocean Commission, the partners have agreed to mobilize resources jointly, advocate the achievement of the UNGASS Declaration of Commitment goals, integrate HIV/AIDS programmes into national development instruments, and reinforce the capacities of nongovernmental organizations, among other action points.

Nongovernmental organizations are also forging regional and international links. In Asia, the Coalition of Asia-Pacific Regional Networks on HIV/AIDS (known as the Seven Sisters), brings together networks representing or working with some of the region's most affected or vulnerable groups, together with service providers and professionals working in HIV/AIDS prevention and care.

Breaking the silence

The involvement of people living with HIV/AIDS is crucial if the barriers of stigma, discrimination and denial are to be overcome. But if they are to choose candour over secrecy, people living with the virus need to have an environment that protects them. For this to happen, leaders have to safeguard fundamental human rights. This may mean reviewing and improving legal instruments, and extending people's access to legal services and information (see 'Focus: AIDS and human rights'). In the Philippines, for example, the 1997 National AIDS Law was developed in consultation with a wide range of stakeholders by the Ministry of Justice. More recently, the Indian Ocean Partnership (see 'Reaching across borders' box) explicitly affirmed the need to respect human rights in order for the HIV/AIDS strategies to succeed.

The commitment of countries' top political leaders must cascade across all levels of government. In that vein, the May 2001 Annual Meeting of Francophone Parliamentarians drafted a framework document to guide West African legislatures on making effective contributions to national responses. On the other side of the continent, in mid-2001, 80 members of parliament in the United Republic of Tanzania created the Tanzanian Parliamentarians AIDS Coalition, to advocate inside and outside of parliament.

Political leadership at a more local level is also important. In Belarus, the National HIV Council has counterparts at the regional and municipal levels. Each is assured political clout by the fact that a deputy head of local government chairs the local councils. Already, some of these decentralized HIV councils are helping place HIV on local agendas.

Mobilizing all sectors of society

An important role for governments is to clear the way so all sectors of society can contribute to the response. Countries that have employed multisectoral approaches have seen their national response bolstered by the involvement of religious, cultural and community groups or associations, employers, trade unions and nongovernmental organizations.

In Africa, especially, it has become commonplace to include multiple ministries, as well as representatives of civil society and other development partners in high-level political coordination structures. Togo provided a recent example when its president set up and chaired a National AIDS Council that now includes representatives from several government ministries, civil society and the private sector. This kind of example is being repeated in other countries. In the Caribbean, for example, the Government of St Kitts and Nevis recently expanded its National AIDS Advisory Committee to include trade unions, nongovernmental organizations, organizations of persons living with HIV/AIDS, religious organizations, and the private sector.

The fact that more and more national AIDS councils, commissions or similar bodies are led by presidents, prime ministers and vice-presidents reflects the threat posed by AIDS to national development. This high-level leadership not only demonstrates political commitment, but also increases the pressure on non-health ministries to develop activities to fight AIDS within their normal programmes.

Caution is called for, though. Political mobilization and policy-making bodies must be managed carefully to avoid creating confusion between existing institutions that already implement AIDS-related activities.

Table 3

Number of National AIDS Councils, Commissions, or similar bodies chaired by presidents, prime ministers or their deputies/vices

Africa (13)	Asia (5)	Eastern Europe & Central Asia (5)	Caribbean (4)
Botswana, Burkina Faso, Burundi, Central African Republic, Côte d'Ivoire, Ethiopia, Ghana, Mozambique, Nigeria, Senegal, South Africa, Swaziland, Togo	China, Mongolia, Nepal, Thailand, Viet Nam	Belarus, Kazakhstan, Kyrghyzstan, Tajikistan, Ukraine	Barbados, Dominican Republic, Haïti*, St Kitts and Nevis

* In Haïti, the body is chaired by the First Lady.

Ministries of Health, for example, have traditionally taken the lead on AIDS programming, often through National AIDS Control Programmes. One way to avoid possible conflicts is by setting clear responsibilities for coordination, advocacy and policy-making in a manner that does not undermine the mandate of health ministries or of other existing structures. In Kenya, for example, the National AIDS Control Council takes the lead on coordination and evaluation of all activities against AIDS, while the Ministry of Health still manages the mainly health-related interventions. Large-scale assistance efforts, such as the World Bank's Multi-Country AIDS Program for Africa, have provided funds to both the National AIDS Control Council (to support coordination work and to channel funds to non-health ministries and nongovernmental actors) as well as to the Ministry of Health.

Within such coordinated frameworks, more and more countries are showing how individual ministries can integrate AIDS into their existing mandates, often in coordination with other ministries and agencies. In Sri Lanka, for example, the Ministry of Labour, the Health Education Bureau, and the Ministry of Women's Affairs have taken on the issue of sexually transmitted infections and HIV/AIDS in free-trade zones. As a result of these zones' attraction for both national and international migrant workers and changing income structures, the risk of HIV/AIDS can be increased in these zones and surrounding areas. The ministries cooperate with nongovernmental organizations to provide prevention services for workers in the zones. And, in the transport sector, the Ministries of Railroads in China and Mongolia have launched programmes for young migrant workers travelling in their respective countries.

Since AIDS is an issue that concerns society as a whole, responses to the epidemic must be linked to national development issues (such as labour and trade) and to development instruments such as Poverty-Reduction Strategy Papers. In Africa, for example, 10 countries have budgeted about 5% of their debt savings for AIDS activities under the highly indebted poor countries (HIPC) debt-relief programme (see 'Meeting the need' chapter).

Meanwhile, Thailand's Eighth National Economic and Social Development Plan,

which factors AIDS into the nation's overall development strategy, treats AIDS as inseparable from other development problems. This reflects the Plan's focus on holistic development and long-term capacity building—an approach that has been adopted in all AIDS-related planning during this period.

Building up, and on, civil society

Multisectoral approaches have another important virtue: they are key to building capacity within civil society and enabling people and groups to be active participants in, rather than passive targets of, programming. Civil society organizations play important roles in advocacy, participating in policy and programming design and implementation, and in the provision of services, especially at the community level.

For example, a great deal of Brazil's success in HIV prevention is due to the country's 600-plus nongovernmental and community organizations. For the past decade or more, these organizations have established needle-exchange schemes, distributed condoms, managed support groups and provided counselling. They have also kept HIV/AIDS in the public spotlight, providing essential political pressure when needed. In 1999, when the Health Ministry faced cuts to its budget for AIDS, tuberculosis and other diseases, these groups

The contribution of faith-based organizations

Faith-based organizations are playing an important role in responding to HIV/AIDS. In Africa, church-supported hospitals and clinics were among the first to care for people who fell ill with AIDS. Faith-based organizations have a key role to play, too, in advocacy and prevention.

In South-East Asia, Buddhist monks and nuns in Cambodia, Thailand and Viet Nam provide care and support to people with HIV/AIDS, while also engaging in prevention work. The Catholic organization Caritas International has for many years conducted theological reflections on HIV/AIDS, while many national Caritas organizations provide care and support for people living with HIV/AIDS and for orphans. In Africa, for example, USAID provides grants to support the strategic planning and programme activities of a variety of religious networks, including the All-Africa Conference of Churches, the Organization of African Instituted Churches, the Islamic Medical Association of Uganda, the Church of the Province of Southern Africa (Anglican), and the Uganda Interfaith Alliance. Elsewhere, the Latin American Episcopal Conference works with UNICEF's regional office to arrange HIV/AIDS workshops and training courses for pastoral workers in parishes across the region.

Faith-based organizations have enormous influence over the cultural norms that guide individual and community behaviour and that affect how information about AIDS is interpreted. Some have objections to the use and promotion of condoms, preferring to stress the teaching of faithfulness and abstinence as prevention measures. Such teaching can be effective in helping change behaviour in positive ways, if people also gain the ability to adhere to it in their daily lives. Other faith-based groups, such as the Islamic community in Uganda, have publicly indicated that education on responsible use of condoms was acceptable. Similarly, the Ecumenical Advocacy Alliance's recent action plan cites sexual education as a key tool for HIV prevention, and stresses that people need factual knowledge on sexual anatomy, physiology and psychology in order to be able to live safely in abstinence or fidelity.

mobilized. Their street protests and other activities were widely covered in the press, and received strong support from some parliamentarians. In the end, the funding was restored. A strong civil society flourishes in an environment in which the State allows for such nongovernmental organization participation. In an activist mode, civil society organizations must be empowered by law and daily practice to organize, publish and collect information, while having legal recourse to the courts and, if necessary, the option to demonstrate. As active participants in policy and programming design and implementation, they must be at the table, right from the beginning.

The recent development of the United Republic of Tanzania's national AIDS policy, for example, was based on widespread consultation with all ministries and a range of civil society organizations. One issue that benefited from the participation of civil society (in this case, including private business) was the response in the workplace to HIV/AIDS. Representatives of the Ministry of Labour, and employers' and workers' organizations worked together to create policies based on the ILO Code of Practice.

Important recent financial initiatives have also incorporated the role of civil society into design and implementation. The World Bank's Multi-Country AIDS Program for Africa explicitly aims to use nongovernmental organizations as implementing partners for approximately 50% of the funding provided. The recently-established Global Fund to Fight AIDS, Tuberculosis and Malaria requires country proposals to pass through 'Country Coordination Mechanisms', which should involve civil society.

The principle of the Greater Involvement of People Living with HIV/AIDS (GIPA) remains a cornerstone of multisectoral responses. Historically, in countries such as Australia, Brazil, Côte d'Ivoire, France, Norway, Thailand, Uganda and the United Kingdom, organizations of persons living with HIV/AIDS have helped draft national plans and tailor them for grass-roots conditions. This is occurring in more and more countries, with heartening results. In Cambodia, for example, the establishment of a national network of persons living with HIV/AIDS in 2001 reflects a positive social environment that is very different from that of even two years ago. The legitimacy of the network was confirmed by the government's recent decision to include representatives of persons living with HIV/AIDS in Cambodia's Country Coordination Mechanism. On a policy level, this is reflected in the new 'National strategic framework for a comprehensive and multisectoral response to HIV/AIDS, 2001–2005', which explicitly endorses GIPA as an overriding principle of the national response. Many examples also come from Africa, where GIPA has been strongly promoted (see 'Prevention' chapter).

Institutional structures: the building blocks of the response

Diverse institutional structures and arrangements need to be in place to turn political commitment and multisectoral participation into effective programming. National Strategic Plans are the main tools for prioritizing and budgeting a country's HIV/AIDS activi-

ties, since they provide the operational framework for investing new and existing financial resources. They also serve as a map for implementing structures, and highlight where human and institutional capacity must be strengthened.

Strategic planning and implementation

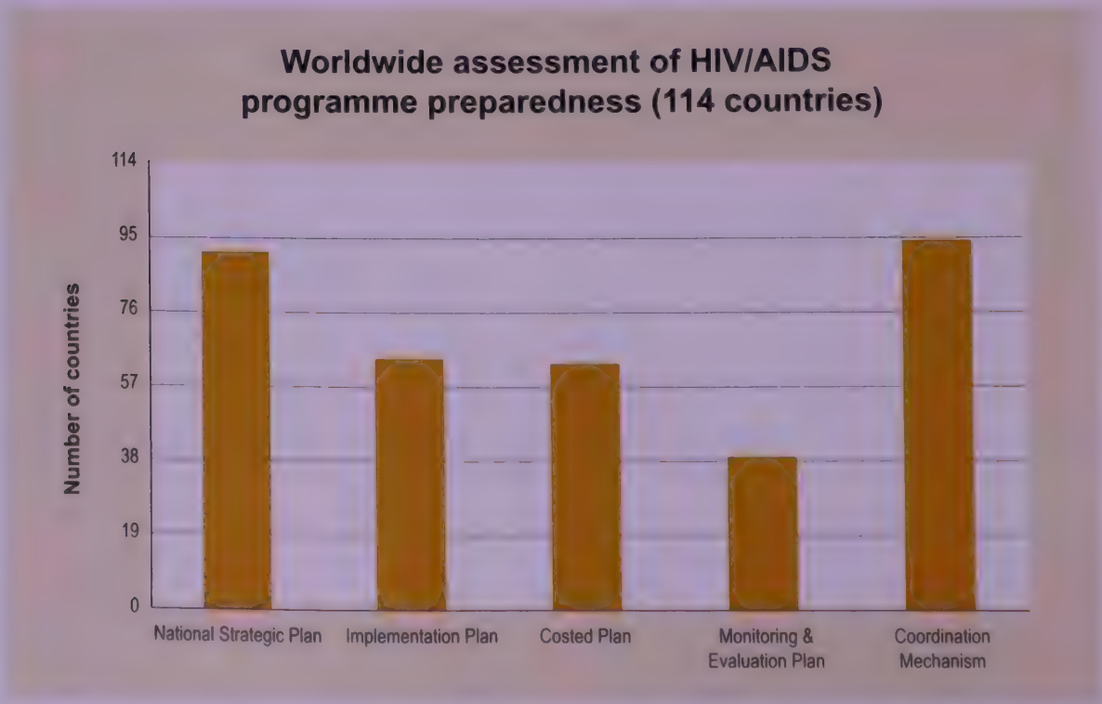
In January 2001, UNAIDS carried out an assessment of country readiness in order to determine how to apply increased levels of funding to HIV/AIDS programmes. The 114 countries assessed were drawn from all regions. 'Readiness' was assessed according to the status of five core components:

- a national strategic AIDS plan;
- capacity to operationalize the plan;
- detailed costing of the strategic plan;
- a monitoring and evaluation strategy; and
- mechanisms that can achieve coordination among governments, nongovernmental organizations, the United Nations system and bilateral donors.

The results of the assessment are summarized in Figure 44. The relatively high number of national strategic plans and coordination mechanisms reflects the progress that has been made in terms of political leadership and the commitment of governments to mobilize a response to AIDS. Approximately 100 countries were able to draft proposals for the Global Fund within about six weeks, largely thanks to the existence of strategic plans and coordination committees that could be easily adapted to the Global Fund's requirements.

In Africa, there remain only a handful of countries with no AIDS response. But, in many cases, plans are still in their early stages, and costing and monitoring elements are still being elaborated. In Asia, planning is generally well advanced; in the few excep-

Figure 44



Source: Joint WHO/UNAIDS presentation, 27 January 2002, Geneva

tions, the lack of preparedness may reflect a relatively low priority assigned to AIDS activities because HIV prevalence is still low. European responses to HIV vary. In some cases, programmes are only now gearing up to deal with recent steep increases in HIV incidence. AIDS responses in the Americas are, in many cases, long-standing and comprehensive, although there are a few countries that still lag behind.

Overall, fewer countries had costed plans, and fewer still had monitoring and evaluation systems set up to help manage and adjust the implementation of activities. These findings highlight the need to focus on capacity-building for the management of programmes around the world.

While the review looked at preparedness, the results should not imply that resources must only go to the best-prepared countries: in some cases, the need is greatest precisely because the countries are ill-prepared to meet the challenges of AIDS.

National coordination

A national response based on strategic planning and multisectoral approaches is not a magic solution to all possible challenges. In fact, it could even trigger some new complications such as 'turf' conflicts, unclear divisions of responsibility, competition over budget allocations, and inconsistencies between ministries and sectors. It is therefore essential to have in place solid national structures that coordinate high-level decision-making with the operational arms.

Over the past two years, several countries have made substantial progress in creating institutional arrangements to better coordinate and manage their national responses. Each has gone about this differently. Côte d'Ivoire has created a HIV/AIDS Ministry, while Cambodia has a National Authority, which is an inter-ministerial body comprised of 15 ministries, the Cambodian Red Cross and provincial governments. Brazil's National Coordination Unit (located within the Ministry of Health) has been the model for some countries, while others have followed the approach established in the early 1990s by Thailand, appointing councils or commissions in the office of the president or prime minister. In a number of African countries, presidents, prime ministers, or their deputies chair national councils. Some central Asian countries have adopted the same model. Kazakhstan, for example, has both Central and Regional Cross-sectoral Committees, chaired by the Deputy Prime Minister and Deputy Governors respectively. Whatever type of body is created, it requires technical expertise and sustained resources, and it should be set up with clear mandates, lines of accountability and appropriate staff.

Ethiopia's experience illustrates how coordinating arrangements can spread from the national to the local levels. The government has a multisectoral National HIV/AIDS Council chaired by the President, and composed of members from government, sector ministries, religious organizations, nongovernmental organizations, the private sector and people living with HIV/AIDS. Supporting the Council is a Secretariat within the Prime Minister's office, along with advisory and review boards, and various subcommittees. Similar structures exist in the regions: at the *Woreda* (district) level, and at the *Kebele* (local) level. The Secretariats at national and regional levels coordinate and facilitate the day-to-day

Four promising national responses

Strong national responses are evident in each region of the world, as the following examples show, each in its own way. Although the epidemic is at a different stage in each country and socioeconomic conditions differ, similarities are apparent. They include a high level of political commitment, good coordination mechanisms, thorough planning, and successful resource mobilization.

- In recent years, Barbados has responded vigorously to its rapidly growing epidemic. In September 2000, coordination of the National AIDS Programme was placed in the Prime Minister's office. While the country is financing most of its HIV/AIDS programming with its own funds, its strong planning and implementation arrangements have also earned it a US$15.5 million World Bank loan for HIV/AIDS.
- Botswana faces one of the most severe epidemics in the world. Under the leadership of its President, who chairs the National AIDS Council, Botswana is one of the first African countries to adopt second-generation planning by moving from a primarily health-system-oriented stance to a broad-based multisectoral one. Despite the high cost of the response, the government is financing a large part itself.
- Cambodia is still rebuilding after decades of conflict, and the country faces huge deficits in infrastructure and resources. Yet it has made progress in its fight against AIDS. Over the past two years, it has reduced adult prevalence rates (see 'Global overview' chapter) and has also shown resolve on the policy front, with a new human rights-based AIDS law due to be implemented in 2002.
- Ukraine is dealing with a rapidly expanding epidemic at the same time as it attempts to manage its transition to a market economy. With strong leadership from the President, and the increasing involvement of civil society, however, a detailed response is being implemented. Significant resources are being focussed on prevention among young people and vulnerable populations, and there are strong sectoral responses from various ministries and the defence and penitentiary services.

implementation of the HIV/AIDS programme, while a Project Coordination Unit is located within the National HIV/AIDS Council. Resources normally flow from this unit to the regions and the *Woredas*, but an Emergency HIV/AIDS Fund provides flexibility. It can channel money directly to the regions and *Woredas*, when needed.

Another useful coordinating mechanism is the United Nations Theme Group on HIV/AIDS, which strives to improve coherence among stakeholders involved in government-led responses. Theme Groups are the primary channel and vehicle for the United Nations system's collective support to, and collaboration with, countries. Since being set up in a few countries in 1996, many Theme Groups have evolved from forums for information-sharing into vehicles for mobilizing political commitment, or for facilitating partnerships between national and international partners. In Central Asia and Eastern Europe, for example, 26 Theme Groups have been created, including those in Kosovo, Montenegro and Serbia. They have proved particularly useful in building bridges for multi-partner initiatives such as the region's Inter-Agency Group on Young People's Health, Development and Protection.

Similarly, the coordinating councils of non-governmental organizations have helped avoid duplication, prioritize action, and add greater weight to advocacy work. Uruguay now has a National AIDS Nongovernmental Organizations Forum that can provide greater coherence to nongovernmental organization activities around the country. The Forum will maintain close ties with the Ministry of Health's National Coordination Unit. Similar structures are being formed in Argentina and Paraguay.

Decentralization and local responses

In addition to developing coordination mechanisms, countries need efficient mechanisms for decentralizing services. This is to ensure that national responses are effective throughout each country, in both urban and rural areas.

District-level responses have emerged as prominent decentralization tools. In countries where the district is the administrative unit closest to individual communities, it can serve as a bridge between community efforts and national strategic planning, and as a site for multisectoral planning.

Mali, for example, approved a 2000–2001 action plan to strengthen district capacities. Its strategy is to build local partnerships with service providers, which will result in the One NGO. One District Initiative on HIV/AIDS (*'Un cercle, une ONG'*, *'cercle'* being the Malian term for 'district'). By 2006, the Initiative aims to cover the country's 702 local government units (communes), each of which will have an action plan and the necessary local partnerships to implement it.

Zimbabwe has adopted an innovative approach for decentralizing funding, by linking its AIDS levy with its District AIDS Plan process. The levy was created in 1999 to supplement funding available to the Ministry of Health and Child Welfare for HIV/AIDS and other activities. Under the levy, individuals and companies pay 3% of income and corporate taxes to a National AIDS Trust fund that is administered by the National AIDS Council. The National AIDS Council at first disbursed the funds to organizations working in HIV/AIDS, but discovered that this mainly benefited well-established organizations. In 2001, a process was established to create community-based Action Plans in each of the country's 55 districts, along with AIDS Action Committees at district, ward and village levels. Disbursements would be made into community bank accounts, and be based on community priorities detailed in the planning process. By the end of that year, each district level had initially received about US$90 000 (roughly equivalent to 5 million Zimbabwe dollars at the time) from the National AIDS Council.

The United Republic of Tanzania, whose district responses have been promoted for several years, offers an example of how such programmes can be refined and enhanced. In June 2001, the Tanzania AIDS Commission agreed to conduct a district capacity assessment that would aid in the development of planning, coordination and funding mechanisms at the district and community levels. The study recommended, among others, greater use of local leaders to fight AIDS, improved funding mechanisms to ensure that funds reach villages and communities, and more communications activities geared towards villages and rural communities. As a result of the study, the guidelines for District AIDS Action Committees will be reformulated.

Capacity development

Developing the capacity to implement and manage the necessary programmes is crucial. In some places, a generalized lack of capacity hampers development activities, particularly in societies emerging from conflict or profound political change.

Almost everywhere, though, some capacity exists in most areas of prevention, treatment, care and impact mitigation. And that capacity can be enhanced. The greatest needs are in sub-Saharan Africa. A variety of initiatives exist to meet these needs, including programmes by UNDP and the World Bank to improve public administration on a wide scale, and the efforts of WHO to improve health systems' performance. Other initiatives deal directly with capacity to manage AIDS programming, such as the Regional AIDS Training Network of Eastern and Southern Africa. The Network links 17 training institutions across the region to provide a range of courses for middle-level managers, supervisors and trainers from public institutions, nongovernmental organizations, and the private sector. It also provides training for teachers, religious leaders and officials in government ministries, along with managers of factories, commercial firms and decision-makers in the private sector.

Training and skill-building are key components of capacity development. But boosting the human capacity needed to get the job

District response in Burkina Faso: teething problems or flawed design?

The experience of Gaoua District, in Burkina Faso's Poni Province, reveals both the potential and the pitfalls of HIV/AIDS district initiatives. Facilitated by UNAIDS and with initial funding from the German aid agency GTZ, the Gaoua Multisectoral Plan (GMP) began in 1997 with a situation analysis that was based on consultation with a wide range of groups. The resulting two-year plan for AIDS prevention and care was accepted by a group of donors in 1999, including several UNAIDS Cosponsors. The plan covered not only 'health' issues but also larger questions such as the migratory patterns that help spread the virus in the district. The plan received widespread support among the local population.

By 2000, however, the plan was in trouble. Less than a year's activities were eventually funded, and medicines and test kits never arrived, undermining much of the planned patient care and counselling. Reasons included problems with the national purchasing systems, complicated procurement and disbursement procedures, ownership conflicts between the national and local levels, the burden of meeting so many agencies' reporting requirements, and the constant rotation of government officials and administrators. One outcome was considerable resentment towards donors and national authorities.

A new, expanded initiative, called the *'Projet Pilote'*, has now superseded the initial plan, with funding from a single donor—the World Bank. The new initiative has been extended to over 500 villages throughout Poni Province. It features new accounting procedures that will provide each village and the eight sectors of Gaoua with a bank account to pay for their own, locally-designed care and prevention projects. The success of this new initiative, it seems, will depend on whether effective local ownership and control of sustainable resources are achieved.

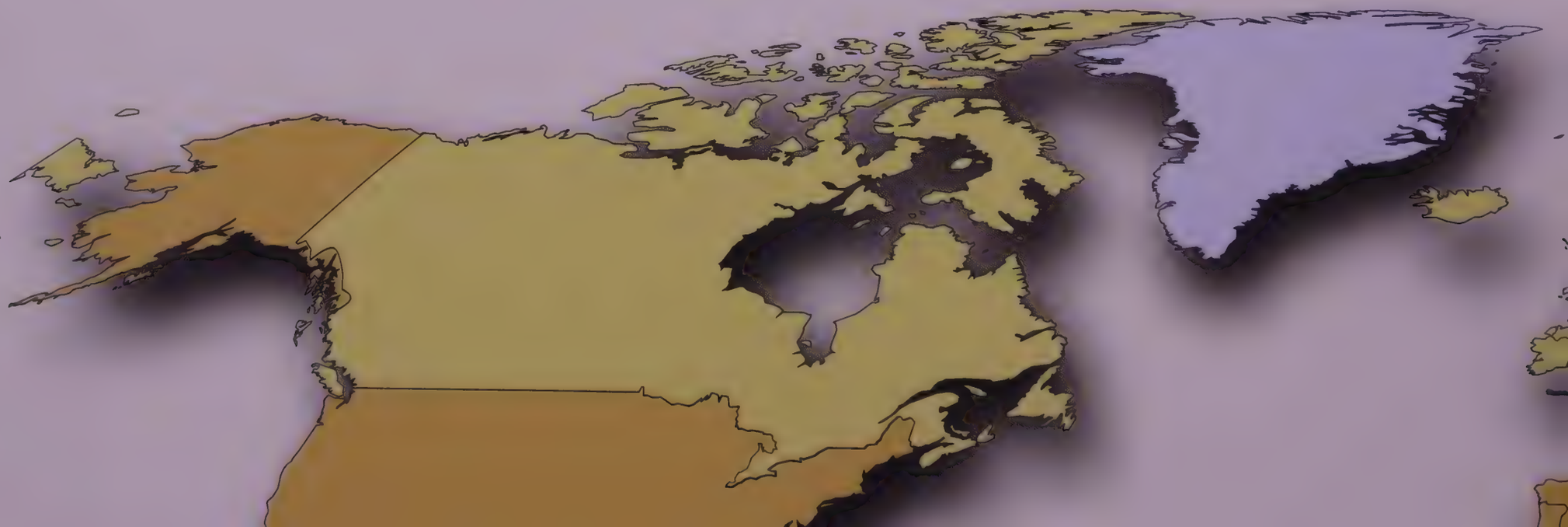
Joint United Nations Programme on HIV/AIDS

UNAIDS

UNICEF • UNDP • UNFPA • UNDCP
ILO • UNESCO • WHO • WORLD BANK

A glob

40 millio



done requires people with the necessary skills and expertise, along with environments conducive to maintaining and building capacity. The UNAIDS Secretariat, in partnership with the US Agency for International Development, the World Bank Institute and others, has embarked on a bid to strengthen human capacity in countries worldwide. The aim is to gather technical guidance on how to take 'training' to further levels, and enable individuals and organizations to recruit, develop and keep skilled leadership for HIV/AIDS-related action.

In Eastern Europe and Central Asia, many countries inherited an extensive social and health infrastructure. But that capacity is not always equal to some of the special challenges thrown up by the epidemic, such as HIV prevention among vulnerable groups (e.g., men who have sex with men, sex workers, and injecting drug users). To a large extent, national programmes are not yet able to fully monitor HIV among these groups, and they lack the personnel with the skills to implement effective interventions. Considerable government investment will be required for relevant training.

Small-scale projects can build the evidence required for advocacy with governments and provide a basis for expanding activities aimed at preventing HIV infection among injecting drug users. Some of the injecting-drug-user projects funded by the Open Society Institute in the Russian Federation are good examples of this. In the city of Kazan, in the Russian Federation, one such project has successfully used the so-called 'snowball' method. (Like a rolling snowball, outreach workers start small, initially disseminating information and syringes to a small number of injecting drug users; once trust has been established, these injecting drug users help the outreach workers find and work with others.) At the end of 2001, the project's coverage had extended to 38% of the estimated local injecting-drug-user population after only 18 months of operation.

South-to-South technical cooperation is also increasing. As part of a UNAIDS strategy focused on national uniformed services, several 'peer' countries in Africa will serve as reference points in each subregion: Namibia among Southern African Development Community member countries, Senegal for Francophone West Africa, and Uganda for Anglophone East Africa. It is hoped that many other countries, particularly those affected by conflicts, will also gain from the peer country initiative.

Mobilizing resources... and putting them to work

Setting priorities and budgets

Budget allocation is one of the clearest expressions of a government's priorities (see 'Meeting the need' chapter). Recently, the Government of Pakistan demonstrated the depth of its commitment by making HIV/AIDS a protected expenditure within the national Social Action Programme. Other countries (most recently, Burundi, Morocco and Peru) have shown their commitment in a different way, by abolishing taxes on imported antiretroviral

drugs, even though the forgone tax revenue could turn out to be substantial as access to drugs improves and more people are able to afford such treatment.

Effective and transparent use of financial resources

While great strides have been made in strategic planning, systems to manage increased resources remain weak in most areas of prevention, treatment, care and impact mitigation. There are still too many blockages between resource availability at global level and resource needs at the local, village and neighbourhood level. Addressing these weaknesses—'unblocking the pipeline'—is crucial.

An important positive development has been the more effective and transparent use of resources. To date, 12 African countries have established the management capacity to deal with big increases in funding through the World Bank's Multi-Country AIDS Program for Africa (MAP), and another 15 are establishing the fiduciary infrastructure required. The MAP places special emphasis on building local-level capacity, and a large share of its resources (as high as 50%) is earmarked for community organizations so they can carry out activities of their own design.

Resource mobilization through AIDS round tables

Special 'AIDS round tables' (which showcase HIV/AIDS strategies in order to attract greater donor funding) can help unlock more resources, as countries such as Burkina Faso, Burundi, Ethiopia, Ghana, Lesotho, Malawi, Mozambique, Swaziland and Zambia have shown.

In June 2001, for example, Burkina Faso organized a round table that featured its five-year multisectoral strategic framework (2001–2006). The framework was supplemented with a set of one-year national action plans, along with an activity-based budget. Donors reacted positively, pledging US$113 million to the plan—a reflection of the value donors place on lucid and straightforward strategies. Bilateral donors (led by France, Germany and the Netherlands) pledged more than US$37 million. Burkina Faso itself contributed US$3.5 million from its national budget, as well as adding a further US$6.5 million from debt savings and a US$22 million loan from the World Bank's Multi-Country HIV/AIDS Program for Africa. UN agencies contributed US$7 million more in grants, while private sector companies pledged almost US$10 million.

In conclusion

Depending on the perspective, an overview of national responses can prompt despair or hope. For those living with HIV/AIDS, most would bear witness to there being too little too late, while hoping that more could be done urgently. However, in historical terms, AIDS is bringing forth national and global responses that are little short of revolutionary.

Only a decade ago, the challenge of engaging the attention of political leaders in the fight against AIDS appeared too great. Today, one sees examples of Heads of State worldwide

Management of funding: Nigeria gears up

In order to manage resources for AIDS, such as a major loan/credit provided by the World Bank, Nigeria has forged ahead in setting up financial supervision systems that fit its particular conditions. The country has a federal system of government, under which important powers and responsibilities for health services are decentralized to the State and local government levels.

The federal National Action Committee has been entrusted with setting standards acceptable to donor agencies in key areas, such as the creation of financial accounting systems, procurement of goods and services, and monitoring and evaluation. While the Committee does not interfere with the day-to-day running of activities by State-level agencies, the latter periodically furnish it with lists of approved community projects and progress reports. The Committee is also responsible for central procurement of goods and services required to implement the National Strategic Plan. It does so in consultation with the State-level agencies. Monitoring and evaluation of outputs (e.g., what was done, how many people benefited, etc.) will be a joint process, with data assembled by the individual States and synthesized by the Committee.

displaying unmistakable personal commitment. The barriers to involving sectors outside health are steadily being removed. And there is increasingly sophisticated understanding of the suffering caused by the epidemic and of the connections between HIV/AIDS and the achievement of national development goals. More and more, political leaders are personally overseeing the coordination of national activities, bolstering human and financial resources, and supporting effective decentralization as a means of expanding activities.

Demands for efforts to succeed are increasing and successful results are multiplying. Traditional institutional models are being revamped or successively replaced, involving radically new ways of doing business. The collaboration between ministries, people living with HIV/AIDS, and the nongovernmental and private sectors in jointly defining and planning responses to the problem is unprecedented. The increased attention paid to the effective and transparent use of resources also indicates the seriousness with which AIDS is being addressed. Finally, lessons learned in programme development and in identifying, harnessing and enhancing existing capacity in local contexts are being put into practice.

In addition to successes in curbing the epidemic and alleviating its impact, there have been additional and unexpected benefits. At a national level, AIDS has increased opportunities for dialogue between governments and civil society. In the fight against AIDS, common ground is increasingly being found among diverse constituencies, and across cultures, classes and religions. AIDS highlights the realities endured by vulnerable and disadvantaged people, as well as the need for support for basic human rights and action to overcome socioeconomic hardship. Where governments show vision and commitment in tackling AIDS, effective programmes are not

Utilizing the greatest resource

People living with HIV/AIDS are probably the greatest resource in the global response to the epidemic, as has been proven repeatedly in countries where such individuals/groups have had the political space and resources to get involved. On every continent and in most countries, networks of people living with HIV have formed. Many of these groups are the result of individuals coming together to share their common experiences and give mutual support, but many have evolved into service providers. Regional and global networks of people living with HIV, and of HIV-positive women, are significant players in policy formation. In addition, there are many initiatives that are designed to stengthen the contributions of people living with HIV. While the potential of many groups of people living with HIV/AIDS remains untapped in many countries, several initiatives are yielding results.

In September 2000, the Centre for African Family Studies and Positive Action (the HIV community programme of GlaxoSmithKline) launched an initiative to develop and organize community-based groups and networks of persons living with HIV/AIDS. It aimed to strengthen networks in Africa so they could actively participate in national and international HIV/AIDS policy discussions. The project was started in Ethiopia, Kenya and Togo and is likely to be extended to other countries.

In the first year, multi-level partnerships were created by forming regional advisory and consultative groups and involving local focal persons. Based on a partnership-needs assessment, the Centre developed training curricula and materials. By August 2001, six training modules (in English and French) had been developed for executives, staff and volunteers of community-based groups. The modules cover advocacy, fundraising, networking, communications, management and leadership.

The technical assistance provided to groups of persons living with HIV/AIDS is enabling them to develop and implement action plans that strengthen their respective organizations. In Ethiopia and Togo, the first step was to establish national networks, which the Centre did by working with National AIDS Programmes, ministries of health and UNAIDS Country Missions. In Kenya, the National Network of People Living with HIV/AIDS in Kenya benefited from the Centre's institutional analysis that strengthened and expanded the network.

the only outcome. Leadership is rewarded: effective responses to AIDS have received political support both within nations and across regions.

At the global level, a unique set of actors has been mobilized (not least by people living with HIV) forging links within and across nations to reshape global policies. At both the national and global levels, all actors are now backed by growing momentum for change. Expectations have been set for bold and ambitious steps to strengthen the response.

Table of country-specific HIV/AIDS estimates and data, end 2001

Global surveillance of HIV/AIDS and sexually transmitted infections (STIs) is a joint effort of the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS). The UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, initiated in 1996, is the main coordination and implementation mechanism through which UNAIDS and WHO compile the best information available and help improve the quality of data needed for informed decision-making and planning at national, regional and global levels. The estimates contained in this table are a product of the Working Group, and they are derived in close collaboration with national AIDS programmes and many other partners.

Country	1. Estimated number of people living with HIV/AIDS, end 2001					2. Children orphaned by AIDS 2001	3. AIDS deaths 2001	4. Population 2001 (thousands)	
	Adults and children	*Adults (15–49)*	*Adults (15–49) rate (%)*	*Women (15–49)*	*Children (0–14)*	*Orphans (0–14) currently living*	*Deaths Adults and children*	*Total*	*Adults (15–49)*
Global total	**40,000,000**	**37,100,000**	**1.2**	**18,500,000**	**3,000,000**	**14,000,000**	**3,000,000**	**6,119,328**	**3,198,252**
Sub-Saharan Africa	**28,500,000**	**26,000,000**	**9.0**	**15,000,000**	**2,600,000**	**11,000,000**	**2,200,000**	**633,816**	**291,310**
Angola	350,000	320,000	5.5	190,000	37,000	100,000	24,000	13,527	5,767
Benin	120,000	110,000	3.6	67,000	12,000	34,000	8,100	6,446	2,929
Botswana	330,000	300,000	38.8	170,000	28,000	69,000	26,000	1,554	762
Burkina Faso	440,000	380,000	6.5	220,000	61,000	270,000	44,000	11,856	5,046
Burundi	390,000	330,000	8.3	190,000	55,000	240,000	40,000	6,502	2,887
Cameroon	920,000	860,000	11.8	500,000	69,000	210,000	53,000	15,203	7,065
Central African Republic	250,000	220,000	12.9	130,000	25,000	110,000	22,000	3,782	1,722
Chad	150,000	130,000	3.6	76,000	18,000	72,000	14,000	8,135	3,570
Comoros	...	...	...	...	...	...	...	727	351
Congo	110,000	99,000	7.2	59,000	15,000	78,000	11,000	3,110	1,364
Côte d'Ivoire	770,000	690,000	9.7	400,000	84,000	420,000	75,000	16,349	7,854
Dem. Republic of Congo	1,300,000	1,100,000	4.9	670,000	170,000	930,000	120,000	52,522	22,073
Djibouti	...	...	...	...	...	...	...	644	284
Equatorial Guinea	5,900	5,500	3.4	3,000	420	...	370	470	211
Eritrea	55,000	49,000	2.8	30,000	4,000	24,000	350	3,816	1,760
Ethiopia	2,100,000	1,900,000	6.4	1,100,000	230,000	990,000	160,000	64,459	28,952
Gabon	...	...	...	...	...	...	...	1,262	552
Gambia	8,400	7,900	1.6	4,400	460	5,300	400	1,337	647
Ghana	360,000	330,000	3.0	170,000	34,000	200,000	28,000	19,734	9,700
Guinea	...	...	...	...	...	...	...	8,274	3,868
Guinea-Bissau	17,000	16,000	2.8	9,300	1,500	4,300	1,200	1,227	557
Kenya	2,500,000	2,300,000	15.0	1,400,000	220,000	890,000	190,000	31,293	15,333
Lesotho	360,000	330,000	31.0	180,000	27,000	73,000	25,000	2,057	984
Liberia	...	...	...	...	...	...	...	3,108	1,518
Madagascar	22,000	21,000	0.3	12,000	1,000	6,300	...	16,437	7,538
Malawi	850,000	780,000	15.0	440,000	65,000	470,000	80,000	11,572	5,118
Mali	110,000	100,000	1.7	54,000	13,000	70,000	11,000	11,677	5,096
Mauritania	...	...	...	...	...	...	...	2,747	1,268
Mauritius	700	700	0.1	350	<100	...	<100	1,171	667
Mozambique	1,100,000	1,000,000	13.0	630,000	80,000	420,000	60,000	18,644	8,511
Namibia	230,000	200,000	22.5	110,000	30,000	47,000	13,000	1,788	820
Niger	...	...	...	...	...	...	...	11,227	4,831
Nigeria	3,500,000	3,200,000	5.8	1,700,000	270,000	1,000,000	170,000	116,929	53,346
Rwanda	500,000	430,000	8.9	250,000	65,000	260,000	49,000	7,949	3,756
Senegal	27,000	24,000	0.5	14,000	2,900	15,000	2,500	9,662	4,521
Sierra Leone	170,000	150,000	7.0	90,000	16,000	42,000	11,000	4,587	2,093
Somalia	43,000	43,000	1.0	...	...	...	...	9,157	4,015
South Africa	5,000,000	4,700,000	20.1	2,700,000	250,000	660,000	360,000	43,792	23,666
Swaziland	170,000	150,000	33.4	89,000	14,000	35,000	12,000	938	450
Togo	150,000	130,000	6.0	76,000	15,000	63,000	12,000	4,657	2,152
Uganda	600,000	510,000	5.0	280,000	110,000	880,000	84,000	24,023	10,290
United Rep. of Tanzania	1,500,000	1,300,000	7.8	750,000	170,000	810,000	140,000	35,965	16,701
Zambia	1,200,000	1,000,000	21.5	590,000	150,000	570,000	120,000	10,649	4,740
Zimbabwe	2,300,000	2,000,000	33.7	1,200,000	240,000	780,000	200,000	12,852	5,972
East Asia & Pacific	**1,000,000**	**970,000**	**0.1**	**230,000**	**3,000**	**85,000**	**35,000**	**1,497,066**	**833,058**
China	850,000	850,000	0.1	220,000	2,000	76,000	30,000	1,284,972	726,031
Dem. People's Rep. of Korea	...	...	...	...	...	...	...	22,428	11,876
Fiji	300	300	0.1	<100	...	-0	...	823	443
Hong Kong	2,600	2,600	0.1	660	<100	-0	<100	6,961	4,134
Japan	12,000	12,000	<0.1	6,600	110	2,000	430	127,335	59,109
Mongolia	<100	<100	<0.1	...	...	-0	...	2,559	1,416
Papua New Guinea	17,000	16,000	0.7	4,100	500	4,200	880	4,920	2,491
Republic of Korea	4,000	4,000	<0.1	960	<100	1,000	220	47,069	27,558
Australia & New Zealand	**15,000**	**14,000**	**0.1**	**1,000**	**<200**	**<1000**	**<100**	**23,146**	**11,845**
Australia	12,000	12,000	0.1	800	140	...	<100	19,338	9,933
New Zealand	1,200	1,200	0.1	180	<100	...	<100	3,808	1,911

	5. Ranges of uncertainty around estimates						6. HIV prevalence rate (%) in young people (15–24)			
	Adults and children living with HIV/AIDS, end 2001		Deaths in adults (15–49) 2001		Deaths in children (0–14) 2001		Female		Male	
Country	*Low estimate*	*High estimate*	*Low estimate*	*High estimate*	*Low estimate*	*High estimate*	*Low estimate*	*High estimate*	*Low estimate*	*High estimate*
Global total	**30,000,000**	**50,000,000**	**1,800,000**	**3,000,000**	**440,000**	**720,000**	**1.00**	**1.78**	**0.59**	**1.05**
Sub-Saharan Africa	**22,000,000**	**35,000,000**	**1,300,000**	**2,300,000**	**380,000**	**650,000**	**6.41**	**11.39**	**3.13**	**5.56**
Angola	250,000	450,000	12,000	20,000	5,400	9,600	4.14	7.33	1.61	2.85
Benin	100,000	150,000	4,700	7,000	1,800	2,700	2.97	4.46	0.94	1.41
Botswana	260,000	390,000	17,000	26,000	3,900	5,900	29.99	44.98	12.86	19.29
Burkina Faso	350,000	660,000	26,000	39,000	9,400	14,000	7.78	11.67	3.18	4.77
Burundi	280,000	500,000	21,000	37,000	8,100	14,000	7.98	14.11	3.58	6.33
Cameroon	740,000	1,100,000	31,000	47,000	11,000	17,000	10.09	15.25	4.33	6.55
Central African Republic	200,000	300,000	14,000	21,000	3,900	5,900	10.83	16.25	4.66	6.99
Chad	96,000	200,000	6,600	14,000	2,200	4,600	2.79	5.77	1.55	3.20
Comoros	...	...	...	...	...	...	...	...	...	...
Congo	74,000	150,000	5,500	11,000	1,900	4,000	5.08	10.52	2.13	4.42
Côte d'Ivoire	620,000	930,000	47,000	71,000	13,000	19,000	6.67	9.95	2.34	3.49
Dem. Republic of Congo	960,000	1,700,000	63,000	110,000	25,000	45,000	4.27	7.55	2.11	3.74
Djibouti	...	...	...	...	...	...	...	...	...	...
Equatorial Guinea	3,800	8,000	170	360	<100	140	1.80	3.74	0.91	1.88
Eritrea	40,000	70,000	220	420	<100	<100	3.10	5.49	2.01	3.55
Ethiopia	1,500,000	2,700,000	84,000	150,000	33,000	58,000	5.65	9.99	3.17	5.62
Gabon	...	...	...	...	...	...	...	...	...	...
Gambia	5,400	11,000	180	380	<100	150	0.88	1.82	0.34	0.71
Ghana	260,000	390,000	16,000	30,000	3,800	5,700	2.08	3.86	0.95	1.76
Guinea	...	...	...	...	...	...	...	...	...	...
Guinea-Bissau	11,000	23,000	560	1,200	200	420	1.94	4.02	0.69	1.43
Kenya	2,000,000	3,000,000	120,000	180,000	33,000	50,000	12.45	18.67	4.80	7.21
Lesotho	230,000	480,000	13,000	28,000	3,100	6,500	24.75	51.40	11.31	23.49
Liberia	...	...	...	...	...	...	...	...	...	...
Madagascar	18,000	26,000	...	...	...	...	0.19	0.28	0.05	0.08
Malawi	720,000	1,100,000	48,000	72,000	16,000	24,000	11.91	17.87	5.08	7.62
Mali	73,000	150,000	5,200	11,000	1,800	3,800	1.35	2.81	0.89	1.84
Mauritania	...	...	...	...	...	...	...	...	...	...
Mauritius	460	940	<100	<100	...	...	...	...	...	...
Mozambique	860,000	1,500,000	50,000	80,000	10,000	25,000	10.56	18.78	4.41	7.84
Namibia	150,000	230,000	7,900	12,000	2,600	3,900	19.43	29.15	8.88	13.32
Niger	...	...	...	...	...	...	...	...	...	...
Nigeria	2,800,000	4,200,000	110,000	170,000	41,000	61,000	4.66	6.99	2.39	3.59
Rwanda	400,000	600,000	29,000	44,000	10,000	15,000	8.96	13.44	3.93	5.90
Senegal	21,000	32,000	1,500	2,300	430	650	0.43	0.65	0.15	0.22
Sierra Leone	110,000	230,000	5,200	11,000	2,100	4,400	4.88	10.19	1.61	3.36
Somalia	28,000	58,000	...	...	...	...	...	...	...	...
South Africa	4,000,000	6,000,000	280,000	420,000	26,000	48,000	20.51	30.76	8.53	12.79
Swaziland	130,000	200,000	7,600	11,000	2,000	3,000	31.59	47.38	12.18	18.27
Togo	120,000	180,000	7,400	11,000	2,300	3,400	4.75	7.12	1.64	2.46
Uganda	480,000	720,000	48,000	72,000	19,000	29,000	3.70	5.56	1.59	2.38
United Rep. of Tanzania	1,200,000	1,700,000	86,000	130,000	25,000	37,000	6.44	9.67	2.84	4.25
Zambia	930,000	1,400,000	70,000	110,000	22,000	34,000	16.78	25.18	6.45	9.68
Zimbabwe	1,800,000	2,700,000	120,000	190,000	35,000	52,000	26.40	39.61	9.90	14.85
East Asia & Pacific	**700,000**	**1,300,000**	**24,000**	**44,000**	**1,200**	**2,200**	**0.06**	**0.10**	**0.12**	**0.22**
China	800,000	1,500,000	23,000	42,000	720	1,300	0.06	0.11	0.11	0.20
Dem. People's Rep. of Korea	...	...	...	...	...	...	...	...	...	...
Fiji	200	400	...	...	...	...	...	...	...	...
Hong Kong	2,100	3,200	<100	<100	<100	<100	0.00	0.00	0.00	0.00
Japan	9,300	14,000	320	480	<100	<100	0.03	0.04	0.01	0.02
Mongolia	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	11,000	22,000	500	1,100	<100	140	0.25	0.53	0.21	0.45
Republic of Korea	3,200	4,800	170	260	<100	<100	0.01	0.01	0.02	0.03
Australia & New Zealand	**10,000**	**18,000**	**<100**	**140**	**<100**	**<100**	**0.00**	**0.01**	**0.01**	**0.02**
Australia	9,600	14,000	<100	<100	<100	<100	0.01	0.02	0.09	0.14
New Zealand	960	1,400	<100	<100	<100	<100	0.01	0.02	0.04	0.06

7. HIV prevalence (%), selected populations

	Women in antenatal care clinics: urban areas				Women in antenatal care clinics: outside major urban areas				Male STI patients: major urban areas				Female sex workers: major urban areas			
Country	Year	Median	Min.	Max.	Year	Median	Min.	Max.	Year	Median	Min.	Max.	Year	Median	Min.	Max.
Global total																
Sub-Saharan Africa																
Angola	1999	3.4	3.4	3.5	1999	8.0	8.0	8.0	1992	2.5	2.5	2.5	1999	19.4	19.4	19.4
Benin	1999	2.3	2.3	2.3	1999	4.3	1.4	7.3	1999	3.9	3.9	3.9	1999	40.8	40.6	41.0
Botswana	2001	44.9	39.1	55.8	2001	34.8	25.8	50.9	2000	53.2	46.0	60.4	...	...	...	...
Burkina Faso	2000	6.3	4.8	7.2	2000	5.5	2.9	13.4	1991	17.5	17.5	17.5	1994	58.2	57.2	59.2
Burundi	1998	18.6	18.6	18.6	1998	19.7	19.7	19.7	...	...	...	...	1993	42.2	42.2	42.2
Cameroon	2000	9.0	4.0	13.6	2000	10.7	3.4	18.0	2000	22.0	22.0	22.0	1995	16.4	15.0	17.7
Central African Republic	1997	12.8	10.8	15.2	1997	12.2	5.3	22.0	1996	19.0	14.0	24.0	1989	18.9	18.9	18.9
Chad	2000	4.0	3.0	8.2	2000	6.4	2.3	11.1	...	...	...	...	1995	13.4	13.4	13.4
Comoros	1996	0.0	0.0	0.0	...	...	...	...	1996	0.0	0.0	0.0	1994	56.8	56.8	56.8
Congo	2000	10.0	5.4	14.6	1993	4.0	2.0	13.6	1990	16.4	16.4	16.4	1987	49.2	34.3	64.1
Côte d'Ivoire	2000	9.0	9.0	9.0	2000	8.8	7.1	10.3	2000	25.0	25.0	25.0	1999	36.0	36.0	36.0
Dem. Republic of Congo	1999	4.1	2.7	5.4	1999	8.5	8.5	8.5	1997	12.2	12.2	12.2	1997	29.0	29.0	29.0
Djibouti	1996	2.9	2.9	2.9	...	...	...	...	1996	22.2	22.2	22.2	1998	27.5	27.5	27.5
Equatorial Guinea	1999	3.3	...	...	1999	3.3	...	...	1996	3.0	2.8	3.2	...	...	...	...
Eritrea	2000	2.8	...	...	2000	2.8	...	...	1999	15.0	15.0	15.0	1989	5.8	5.8	5.8
Ethiopia	2000	14.9	10.1	17.4	2000	3.1	0.7	14.3	1992	37.5	32.0	43.0	1998	73.7	73.7	73.7
Gabon	1995	4.0	2.1	5.4	1993	1.2	1.2	1.2	1988	3.6	3.6	3.6	...	...	...	...
Gambia	2001	0.9	...	...	2001	1.3	0.5	2.8	1991	4.7	4.7	4.7	1993	13.6	13.6	13.6
Ghana	2000	3.8	1.3	4.0	2000	2.2	1.0	7.8	1999	39.0	39.0	39.0	1998	50.0	50.0	50.0
Guinea	1996	2.1	2.1	2.1	1996	1.9	0.7	2.3	1996	4.0	4.0	4.0	1994	36.6	36.6	36.6
Guinea-Bissau	1997	2.5	2.5	2.5	...	...	...	...	...	...	...	...	...	...	...	...
Kenya	2000	15.3	12.2	18.4	2000	14.0	3.3	31.0	1996	14.0	14.0	14.0	2000	27.0	24.1	51.8
Lesotho	2000	42.2	42.2	42.2	2000	19.0	12.3	26.0	2000	65.2	65.2	65.2	...	...	...	...
Liberia	1993	4.0	4.0	4.0	1998	10.1	10.1	10.1	1993	8.0	8.0	8.0	...	...	...	...
Madagascar	1996	0.0	0.0	0.0	1996	0.0	0.0	1.0	1998	0.0	0.0	0.0	1995	0.3	0.3	0.3
Malawi	2001	20.1	18.6	28.5	2001	16.1	4.5	35.8	1996	54.8	54.8	54.8	1994	70.0	70.0	70.0
Mali	2001	1.7	...	...	2001	1.7	...	...	...	...	...	...	2000	21.0	21.0	21.0
Mauritania	1994	0.5	0.5	0.5	...	...	...	...	1996	1.7	1.7	1.7	...	...	...	...
Mauritius	1999	0.0	0.0	0.0	...	...	...	...	1999	0.4	0.4	0.4	1998	7.5	7.5	7.5
Mozambique	2000	14.4	13.0	15.7	2000	10.6	4.0	31.2	1999	15.1	15.1	15.1	...	...	...	...
Namibia	2000	29.6	28.2	31.0	2000	17.3	6.6	32.5	1998	42.2	39.9	44.6	...	...	...	...
Niger	1993	1.3	1.3	1.3	1994	1.2	1.2	1.2	1992	4.1	4.1	4.1	1997	23.6	23.6	23.6
Nigeria	2001	4.2	1.3	14.3	2001	5.3	1.0	15.0	1995	3.0	3.0	3.0	1996	30.5	30.5	30.5
Rwanda	2000	23.0	23.0	23.0	1999	7.0	2.3	13.2	1996	41.8	29.1	54.5	...	...	...	...
Senegal	1998	0.5	0.5	0.5	1998	0.5	0.2	0.7	1998	3.0	0.0	4.1	1998	7.0	6.1	13.3
Sierra Leone	1997	7.0	...	...	1997	7.0	...	...	1992	3.3	3.3	3.3	1995	26.7	26.7	26.7
Somalia	1998	0.0	0.0	0.0	1999	0.7	0.4	1.7	1990	0.0	0.0	0.0	1990	2.4	2.4	2.4
South Africa	2000	24.3	8.7	36.2	2000	22.9	11.2	29.7	2000	64.3	64.3	64.3	2000	50.3	50.3	50.3
Swaziland	2000	32.3	32.3	32.3	2000	34.5	27.0	41.0	2000	48.9	48.9	48.9	...	...	...	...
Togo	1997	6.8	6.8	6.8	1997	4.6	3.0	8.2	1992	45.2	45.2	45.2	1992	78.9	78.9	78.9
Uganda	2000	11.3	10.7	11.8	2000	5.0	1.9	13.1	1999	23.0	23.0	23.0	...	...	...	...
United Rep. of Tanzania	2000	17.0	10.1	23.3	2000	14.0	2.7	32.1	1997	5.1	5.1	5.1	2000	3.5	1.0	6.0
Zambia	2001	30.7	30.7	30.7	1998	13.0	5.2	31.0	1991	59.7	59.7	59.7	1998	68.7	68.7	68.7
Zimbabwe	2000	31.1	30.0	33.5	2000	33.2	13.0	70.7	1995	71.1	71.0	71.2	1995	86.0	86.0	86.0
East Asia & Pacific																
China	2000	0.0	0.0	0.0	2000	0.5	0.5	0.5	2000	0.0	0.0	1.3	2000	0.0	0.0	10.3
Dem. People's Rep. of Korea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hong Kong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Japan	1999	0.0	0.0	0.0	1999	0.0	0.0	0.0	1994	0.1	0.1	0.1	1988	0.0	0.0	0.0
Mongolia	...	...	...	...	...	...	...	...	1989	0.0	0.0	0.0	1992	0.0	0.0	0.0
Papua New Guinea	1995	0.2	0.2	0.2	1992	0.0	0.0	0.0	1989	0.0	0.0	0.0	1989	0.0	0.0	0.0
Republic of Korea	...	...	...	...	...	...	...	...	1998	7.0	7.0	7.0	2000	16.0	16.0	16.0
Australia & New Zealand																
Australia	...	...	...	...	...	...	...	...	1996	0.6	0.5	0.7	...	...	...	...
New Zealand	...	...	...	...	...	...	...	...	1997	0.2	0.2	0.2	...	...	...	...

Note: For key to letters used after figures, see page 202.

7. HIV prevalence (%) con't.

8. Knowledge and behaviour indicators

Country	Injecting drug users: major urban areas				Don't know that a healthy-looking person can be infected with HIV/AIDS (%) (15–24)		Median age at first sex (20–24)			Reported higher-risk sex for adults (15–49) in the last year (%)			Reported condom use for adults (15–24) at last higher-risk sex (%)		
	Year	Median	Min.	Max.	Female	Year	Male	Female	Year	Male	Female	Year	Male	Female	Year
Global total															
Sub-Saharan Africa															
Angola	...	...	...	...	57.2	2000	...	...	...	...	...	...	...	...	...
Benin	...	...	...	...	59.1	1996	17.6	17.2	1996	38.2 *k*	9.3	1996	31.0	16.1	2001
Botswana	...	...	...	...	21.6	2000	...	17.4	1988	...	...	...	85.0 *a*	...	1996
Burkina Faso	...	...	...	...	58.0	1999	20.0	17.3	1999	28.2 *rw*	7.7 *r*	1999	58.7 *hr*	42.4 *hr*	1999
Burundi	...	...	...	...	33.4	2000	...	20.4	1987	8.9	3.1	1990	...	...	...
Cameroon	...	...	...	...	46.3	2000	17.0	16.3	1998	54.6	27.6	1998	5.2 *hr*	2.7 *hr*	1998
Central African Republic	...	...	...	...	54.0	2000	...	16.0	1995	22.7	10.7	1995	...	12.8 *h*	1995
Chad	...	...	...	...	72.3	2000	18.4	16.0	1997	27.3 *w*	6.2	1997	5.4 *hr*	1.6 *hr*	1997
Comoros	...	...	...	...	45.2	2000	18.1	20.9	1996	...	...	...	45.0 *h*	21.7 *h*	1996
Congo	...	...	...	...	...	...	...	...	...	...	...	...	...	12.0	1999
Côte d'Ivoire	1995	75.0	75.0	75.0	49.0	2000	...	16.2	1999	87.4	29.9	1998	11.6 *hr*	1.0 *hr*	1998
Dem. Republic of Congo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Djibouti	...	...	...	...	...	...	...	...	...	15.0	3.0	1995	71.7	67.4	1995
Equatorial Guinea	...	...	...	...	53.7	2000	...	...	...	...	...	...	...	...	...
Eritrea	...	...	...	...	46.5	1995	...	17.9	1995	11.5 *w*		1995	...	...	...
Ethiopia	...	...	...	...	61.2	2000	...	18.1	2000	21.1 *xw*	8.2 *x*	2000	30.3	13.4	2000
Gabon	...	...	...	...	28.3	2000	15.7	16.2	2000	76.5	51.8	2000	48.4 *h*	31.7 *h*	2000
Gambia	...	...	...	...	47.4	2000	...	...	...	...	...	...	...	...	...
Ghana	...	...	...	...	26.1	1998	19.5	17.5	1998	...	...	...	29.9 *r*	14.3 *r*	1998
Guinea	...	...	...	...	41.6	1999	17.5	16.0	1999	47.4	12.4	1999	32.9 *r*	17.6 *r*	1999
Guinea-Bissau	...	...	...	...	69.3	2000	...	...	...	50.3	29.5	1990	...	...	...
Kenya	...	...	...	...	25.4	2000	16.2	17.3	1998	44.7	20.3	1998	42.4	16.0	1998
Lesotho	...	...	...	...	53.9	2000	...	...	...	52.6	28.4	1989	...	...	...
Liberia	...	...	...	...	69.2 *b*	2000	17.8	15.5	2000	...	...	...	...	...	...
Madagascar	...	...	...	...	72.5	2000	...	17.0	1997	24.5 *x*	7.1 *x*	2000	2.6 *x*	0.3 *x*	2000
Malawi	...	...	...	...	16.7	2000	17.7	17.1	2000	36.9 *x*	9.4 *x*	2000	38.9	28.7	2000
Mali	...	...	...	...	62.6	1996	18.7	15.9	1996	22.9		1996	33.9 *h*	11.7 *h*	1996
Mauritania	...	...	...	...	70.0	2000	...	...	...	7.1 *x*		2000	...	...	...
Mauritius	...	...	...	...	...	...	...	...	...	1.5 *a*	...	1996	26.3 *a*	...	1996
Mozambique	...	...	...	...	62.1	1997	...	16.0	1997	59.4	...	1997	...	...	...
Namibia	...	...	...	...	...	...	...	18.6	1992	...	...	...	...	...	...
Niger	...	...	...	...	77.9	2000	...	15.7	1998	16.3 *w*	2.3	1998	2.6 *h*	1.5 *h*	1998
Nigeria	...	...	...	...	55.0	1999	...	18.1	1999						
Rwanda	...	...	...	...	76.5	2000	20.6 *w*	20.3 *z*	2000	12.4	7.0	2000	50.3 *h*	14.7 *h*	2000
Senegal	...	...	...	...	55.1	1997	...	19.3	1997	33.0 *u*	10.0 *u*	1997	67.0 *h*	45.0 *h*	1997
Sierra Leone	...	...	...	...	64.7	2000	...	...	...	...	...	...	...	...	...
Somalia	...	...	...	...	89.3	2000	...	...	...	...	...	...	...	...	...
South Africa	...	...	...	...	> 50.0 *c*	1998	...	...	...	...	...	...	...	...	...
Swaziland	...	...	...	...	81.5	2000	...	...	...	19.2	6.1	1991	...	...	...
Togo	...	...	...	...	32.6	1998	18.0	16.5	1998	35.3 *w*	16.4	1998	36.8 *h*	17.3 *h*	1998
Uganda	...	...	...	...	24.5	2001	19.4 *z*	16.7	2000	28.4 *x*	14.1 *x*	2000	58.9 *h*	37.8 *h*	2000
United Rep. of Tanzania	...	...	...	...	33.0	1999	17.5	17.4	1999	52.3 *w*	29.1	1999	34.0 *r*	22.8 *r*	1999
Zambia	...	...	...	...	25.3	2000	16.0	16.6	1996	43.2 *x*	29.3 *x*	1998	30.1	17.6	1998
Zimbabwe	...	...	...	...	26.0	1999	19.5	18.9	1999	42.5 *w*	16.0	1999	70.2	42.0	1999
East Asia & Pacific															
China	2000	0.2	0.0	20.5	...	...	...	...	...	...	...	...	...	...	...
Dem. People's Rep. of Korea	...	...	...	...	...	...	...	...	...	...	...	...	...		
Fiji	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hong Kong	1997	0.0	0.0	0.0	...	...	...	...	...	...	...	...	...	...	...
Japan	1999	0.0	0.0	0.0	...	...	...	...	...	23.7	16.3	1996	...	...	...
Mongolia	...	...	...	...	43.3	2000	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	54.0	1996	...	...	...	15.0	12.0	1994	38.0	12.0	1994
Republic of Korea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Australia & New Zealand															
Australia	1996	1.7	1.7	1.7	...	...	...	...	...	...	...	...	...	...	...
New Zealand	1997	0.4	0.3	0.5	...	...	...	17.2	1995	...	...	...	...	...	...

	1. Estimated number of people living with HIV/AIDS, end 2001					2. Children orphaned by AIDS 2001	3. AIDS deaths 2001	4. Population 2001 (thousands)	
Country	Adults and children	Adults (15–49)	Adults (15–49) rate (%)	Women (15–49)	Children (0–14)	Orphans (0–14) currently living	Deaths Adults and children	Total	Adults (15–49)
South & South-East Asia	**5,600,000**	**5,400,000**	**0.6**	**2,000,000**	**220,000**	**1,800,000**	**400,000**	**1,978,430**	**1,031,463**
Afghanistan	...	...	..	...	...	...	...	22,474	10,435
Bangladesh	13,000	13,000	<0.1	3,100	310	2,100	650	140,369	72,340
Bhutan	<100	<100	<0.1	...	...	...	...	2,141	972
Brunei Darussalam	...	...	...	...	...	...	...	335	187
Cambodia	170,000	160,000	2.7	74,000	12,000	55,000	12,000	13,441	6,314
India	3,970,000	3,800,000	0.8	1,500,000	170,000	...	...	1,025,096	533,580
Indonesia	120,000	120,000	0.1	27,000	1,300	18,000	4,600	214,840	118,163
Iran (Islamic Republic of)	20,000	20,000	<0.1	5,000	<200	...	290	71,369	37,396
Lao People's Dem. Rep.	1,400	1,300	<0.1	350	<100	...	<150	5,403	2,542
Malaysia	42,000	41,000	0.4	11,000	770	14,000	2,500	22,633	11,868
Maldives	<100	<100	0.1	...	...	...	...	300	141
Myanmar	...	...	...	...	...	...	...	48,364	25,855
Nepal	58,000	56,000	0.5	14,000	1,500	13,000	2,400	23,593	11,106
Pakistan	78,000	76,000	0.1	16,000	2,200	25,000	4,500	144,971	67,964
Philippines	9,400	9,400	<0.1	2,500	<10	4,100	720	77,131	39,600
Singapore	3,400	3,400	0.2	860	<100	...	140	4,108	2,324
Sri Lanka	4,800	4,700	<0.1	1,400	<100	2,000	250	19,104	10,695
Thailand	670,000	650,000	1.8	220,000	21,000	290,000	55,000	63,584	36,636
Viet Nam	130,000	130,000	0.3	35,000	2,500	22,000	6,600	79,175	43,343
Eastern Europe & Central Asia	**1,000,000**	**1,000,000**	**0.5**	**260,000**	**15,000**	**<5000**	**23,000**	**393,245**	**209,038**
Armenia	2,400	2,400	0.2	480	<100	...	<100	3,788	2,152
Azerbaijan	1,400	1,400	<0.1	280	...	...	<100	8,096	4,529
Belarus	15,000	15,000	0.3	3,700	...	...	1,000	10,147	5,397
Bosnia and Herzegovina	...	900*	<0.1*	...	...	...	...	4,067	2,292
Bulgaria	...	400*	<0.1*	...	...	...	...	7,867	3,915
Croatia	200	200	<0.1	<100	<10	...	<10	4,655	2,331
Czech Republic	500	500	<0.1	<100	<10	...	<10	10,260	5,233
Estonia	7,700	7,700	1.0	1,500	...	...	<100	1,377	702
Georgia	900	900	<0.1	180	...	...	<100	5,239	2,726
Hungary	2,800	2,800	0.1	300	<100	...	<100	9,917	5,001
Kazakhstan	6,000	6,000	0.1	1,200	<100	...	300	16,095	8,866
Kyrgyzstan	500	500	<0.1	<100	...	...	<100	4,986	2,627
Latvia	5,000	5,000	0.4	1,000	<100	...	<100	2,406	1,215
Lithuania	1,300	1,300	0.1	260	<100	...	<100	3,689	1,901
Poland	...	14,000*	0.1*	...	...	...	...	38,577	20,685
Republic of Moldova	5,500	5,500	0.2	1,200	-0	...	300	4,285	2,339
Romania	6,500	2,500	<0.1	...	4,000	...	350	22,388	11,761
Russian Federation	700,000	700,000	0.9	180,000	...	...	9,000	144,664	78,166
Slovakia	<100	<100	<0.1	<100	...	...	<100	5,403	2,934
Tajikistan	200	200	<0.1	<100	...	...	<100	6,135	3,111
Turkmenistan	<100	<100	<0.1	<100	...	...	<100	4,835	2,508
Ukraine	250,000	250,000	1.0	76,000	...	...	11,000	49,112	25,251
Uzbekistan	740	740	<0.1	150	<100	...	<100	25,257	13,395
Western Europe	**550,000**	**540,000**	**0.3**	**140,000**	**5,000**	**150,000**	**8,000**	**407,021**	**200,286**
Albania	...	...	...	...	...	...	...	3,145	1,692
Austria	9,900	9,900	0.2	2,200	<100	...	<100	8,075	4,058
Belgium	8,500	8,100	0.2	2,900	330	...	<100	10,264	4,987
Denmark	3,800	3,800	0.2	770	<100	...	<100	5,333	2,519
Finland	1,200	1,200	<0.1	330	<100	...	<100	5,178	2,462
France	100,000	100,000	0.3	27,000	1,000	...	800	59,453	29,001
Germany	41,000	41,000	0.1	8,100	550	...	660	82,007	40,191
Greece	8,800	8,800	0.2	1,800	<100	...	<100	10,623	5,269
Iceland	220	220	0.2	<100	<100	...	<100	281	144
Ireland	2,400	2,200	0.1	660	190	...	<100	3,841	2,022
Italy	100,000	100,000	0.4	33,000	770	...	1,100	57,503	28,018
Luxembourg	...	360	0.2	...	...	...	<100	442	221
Malta	...	240	0.1	...	...	...	<100	392	193
Netherlands	17,000	17,000	0.2	3,300	160	...	110	15,930	7,997
Norway	1,800	1,800	0.1	400	<100	...	<100	4,488	2,155
Portugal	27,000	26,000	0.5	5,100	350	...	1,000	10,033	5,089

	5. Ranges of uncertainty around estimates						6. HIV prevalence rate (%) in young people (15–24)			
	Adults and children living with HIV/AIDS, end 2001		Deaths in adults (15–49) 2001		Deaths in children (0–14) 2001		Female		Male	
Country	*Low estimate*	*High estimate*	*Low estimate*	*High estimate*	*Low estimate*	*High estimate*	*Low estimate*	*High estimate*	*Low estimate*	*High estimate*
South & South-East Asia	**4,100,000**	**7,800,000**	**250,000**	**450,000**	**29,000**	**56,000**	**0.36**	**0.64**	**0.22**	**0.38**
Afghanistan	...	...	...	...	...	...	...	...	...	...
Bangladesh	9,400	17,000	420	750	<100	<100	0.01	0.01	0.01	0.01
Bhutan	...	...	...	...	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...
Cambodia	140,000	210,000	8,100	12,000	1,800	2,700	1.99	2.98	0.77	1.16
India	2,600,000	5,400,000	...	...	...	...	0.46	0.96	0.22	0.46
Indonesia	94,000	140,000	3,400	5,100	240	360	0.05	0.07	0.05	0.08
Iran (Islamic Republic of)	13,000	27,000	150	300	<100	<100	0.01	0.01	0.03	0.06
Lao People's Dem. Rep.	1,000	1,800	<100	<100	<100	<100	0.02	0.03	0.03	0.06
Malaysia	34,000	51,000	1,900	2,800	...	...	0.09	0.14	0.56	0.84
Maldives	...	...	...	...	...	...	...	...	...	...
Myanmar	180,000	420,000	8,400	13,000	1,200	1,700	...	...	...	...
Nepal	37,000	78,000	1,400	2,800	220	450	0.18	0.38	0.17	0.36
Pakistan	51,000	110,000	2,600	5,500	290	600	0.03	0.07	0.04	0.08
Philippines	7,500	11,000	570	860	...	...	0.01	0.02	0.01	0.02
Singapore	2,700	4,100	<100	160	<100	<100	0.12	0.19	0.12	0.17
Sri Lanka	3,800	5,800	200	300	<100	<100	0.03	0.04	0.02	0.03
Thailand	530,000	800,000	50,000	76,000	2,200	3,300	1.32	2.00	0.88	1.33
Viet Nam	110,000	160,000	4,900	7,400	390	590	0.13	0.20	0.25	0.38
Eastern Europe & Central Asia	**720,000**	**1,300,000**	**15,000**	**30,000**	**<100**	**<100**	**0.19**	**0.34**	**0.75**	**1.33**
Armenia	1,900	2,900	<100	<100	<100	<100	0.05	0.07	0.18	0.27
Azerbaijan	1,000	1,800	<100	<100	<100	<100	0.01	0.02	0.04	0.08
Belarus	9,600	20,000	650	1,400	<100	<100	0.13	0.26	0.38	0.79
Bosnia and Herzegovina	...	...	...	...	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...	...	...	...	...
Croatia	140	280	<100	<100	...	...	0.00	0.00	0.00	0.00
Czech Republic	400	600	<100	<100	...	...	0.00	0.00	0.00	0.00
Estonia	5,600	9,800	<100	<100	<100	<100	0.45	0.79	1.80	3.17
Georgia	590	1,200	<100	<100	<100	<100	0.01	0.03	0.05	0.10
Hungary	2,000	3,500	<100	<100	...	...	0.01	0.03	0.07	0.12
Kazakhstan	4,200	8,800	210	380	<100	<100	0.02	0.04	0.09	0.17
Kyrgyzstan	330	680	<100	<100	<100	<100	0.00	0.00	0.00	0.00
Latvia	4,000	6,000	<100	<100	<100	<100	0.19	0.29	0.75	1.13
Lithuania	850	1,800	<100	<100	<100	<100	0.03	0.06	0.10	0.22
Poland	...	...	...	...	...	...	0.03	0.06	0.06	0.12
Republic of Moldova	3,600	7,400	200	410	<100	<100	0.09	0.18	0.30	0.62
Romania	4,200	8,800	230	470	...	...	...	...	...	...
Russian Federation	500,000	840,000	7,200	11,000	<100	<100	0.53	0.80	1.50	2.24
Slovakia	<100	<100	<100	<100	...	...	0.00	0.00	0.00	0.00
Tajikistan	130	270	<100	<100	<100	<100	0.00	0.00	0.00	0.00
Turkmenistan	<100	<100	<100	<100	<100	<100	0.00	0.00	0.00	0.00
Ukraine	180,000	320,000	7,900	14,000	<100	<100	0.63	1.12	1.41	2.50
Uzbekistan	480	1,000	<100	<100	...	...	0.00	0.00	0.01	0.01
Western Europe	**440,000**	**670,000**	**6,200**	**9,800**	**<100**	**<100**	**0.10**	**0.17**	**0.15**	**0.27**
Albania	...	...	...	...	...	...	...	...	...	...
Austria	7,900	12,000	<100	<100	...	...	0.10	0.14	0.18	0.27
Belgium	6,800	10,000	<100	<100	...	...	0.10	0.14	0.09	0.14
Denmark	3,600	5,500	<100	<100	...	...	0.05	0.08	0.11	0.16
Finland	970	1,500	<100	<100	...	...	0.02	0.03	0.03	0.04
France	81,000	120,000	640	960	<100	<100	0.14	0.21	0.21	0.31
Germany	33,000	49,000	530	790	...	...	0.04	0.05	0.08	0.12
Greece	7,000	11,000	<100	<100	...	...	0.05	0.08	0.11	0.16
Iceland	180	260	<100	<100	...	...	...	...	...	...
Ireland	1,900	2,900	<100	<100	...	...	0.04	0.06	0.05	0.07
Italy	84,000	130,000	880	1,300	...	...	0.21	0.31	0.23	0.34
Luxembourg	<100	<100	<100	<100	...	...	...	...	...	...
Malta	<100	<100	<100	<100	...	...	...	...	...	...
Netherlands	13,000	20,000	<100	130	...	...	0.07	0.11	0.16	0.24
Norway	1,400	2,100	<100	<100	...	...	0.03	0.05	0.06	0.09
Portugal	23,000	40,000	500	1,200	<100	<100	0.15	0.22	0.33	0.49

7. HIV prevalence (%), selected populations

Country	Women in antenatal care clinics: urban areas				Women in antenatal care clinics: outside major urban areas				Male STI patients: major urban areas				Female sex workers: major urban areas			
	Year	Median	Min.	Max.	Year	Median	Min.	Max.	Year	Median	Min.	Max.	Year	Median	Min.	Max.
South & South-East Asia																
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bangladesh	...	...	...	...	1989	0.00	0.0	0.0	1998	0.30	0.3	0.3	2000	20.0	20.0	20.0
Bhutan	...	...	...	...	1993	0.00	0.0	0.0	...	...	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	2000	2.7	2.7	2.7	2000	1.70	0.6	5.7	1994	8.50	8.5	8.5	2000	26.3	26.3	26.3
India	1999	2.0	0.0	3.3	2000	2.00	1.0	3.9	1999	3.60	0.8	64.4	1998	5.3	5.3	5.3
Indonesia	1999	0.0	0.0	0.0	1996	0.00	0.0	0.0	...	...	...	...	1998	0.2	0.2	0.2
Iran (Islamic Republic of)	1993	0.0	0.0	0.0	1994	0.00	0.0	0.0	...	...	...	...	1994	0.0	0.0	0.0
Lao People's Dem. Rep.	1998	0.0	...	...	...	...	...	...	...	...	...	...	2000	1.0	...	...
Malaysia	...	...	...	...	1996	0.10	0.0	0.7	1996	4.20	4.2	4.2	1996	6.3	6.3	6.3
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Myanmar	2000	2.8	2.0	3.5	2000	1.80	0.0	5.3	2000	12.60	12.1	13.0	2000	38.0	26.0	50.0
Nepal	1992	0.0	0.0	0.0	1992	0.00	0.0	0.0	2000	0.00	0.0	0.0	1999	36.2	36.2	36.2
Pakistan	1995	0.0	0.0	0.6	1999	0.00	0.0	0.0	1995	0.30	0.2	3.7	1995	0.0	0.0	0.0
Philippines	...	...	...	...	...	...	...	...	1994	0.00	0.0	0.0	1994	0.3	0.3	0.3
Singapore	1998	0.0	0.0	0.0	...	...	...	...	1998	0.70	0.7	0.7	1998	0.5	0.5	0.5
Sri Lanka	1996	0.0	0.0	0.0	1996	0.00	0.0	0.0	1998	0.10	0.1	0.1	1998	0.0	0.0	0.0
Thailand	2000	1.6	1.6	1.6	2000	1.50	0.4	5.3	2000	2.50	2.5	2.5	2000	6.7	6.7	6.7
Viet Nam	1999	0.2	0.1	0.2	1999	0.00	0.0	0.3	1999	2.00	1.0	5.5	2000	11.0	11.0	11.0
Eastern Europe & Central Asia																
Armenia	1998	0.1	0.1	0.2	1998	0.00	0.0	0.0	1998	0.00	0.0	0.0	...	...	...	...
Azerbaijan	...	...	...	...	...	...	...	...	1995	0.00 *n*	...	...	...	...	...	...
Belarus	...	...	...	...	1996	0.04 *n*	...	...	1996	0.04 *n*	...	...	...	...	...	...
Bosnia and Herzegovina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bulgaria	...	...	...	...	1997	0.01 *n*	...	...	1997	0.09 *n*	...	...	...	...	...	...
Croatia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Czech Republic	...	...	...	...	1996	0.005 *n*	...	...	1996	0.00 *n*	...	...	...	...	...	...
Estonia	...	...	...	...	...	...	...	...	1996	0.03 *n*	...	...	...	...	...	...
Georgia	1997	0.0	0.0	0.0	...	...	...	...	...	...	...	...	...	...	...	...
Hungary	...	...	...	...	1996	0.00 *n*	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyrgyzstan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Latvia	...	...	...	...	1996	0.06 *n*	...	...	1996	0.05 *n*	...	...	1998	11.0	...	...
Lithuania	1996	0.0	0.0	0.0	1993	0.00 *n*	...	...	1996	0.00	...	...	...	...	...	...
Poland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Republic of Moldova	...	...	...	...	1995	0.00 *n*	...	...	1996	0.04 *n*	...	...	...	...	...	...
Romania	...	...	...	...	...	...	...	...	1996	0.50	...	...	...	...	...	...
Russian Federation	...	...	...	...	1998	0.005 *n*	...	...	1998	0.02 *n*	...	...	...	...	...	...
Slovakia	...	...	...	...	1995	0.00 *n*	...	...	1996	0.00 *n*	...	...	...	...	...	...
Tajikistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ukraine	1996	0.2	0.0	0.2	1996	0.05 *n*	...	...	1996	13.30	0.5	22.7	1995	0.0 *n*	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Western Europe																
Albania	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Austria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Belgium	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Denmark	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Finland	1994	0.0	0.0	0.0	1996	0.01 *n*	...	...	1996	0.10	...	...	...	...	...	...
France	1994	0.4	0.0	0.5	...	...	...	...	1993	4.20	3.7	8.0	1991	2.3	...	...
Germany	1997	0.1	...	...	1997	0.00	...	...	...	...	...	...	...	...	...	...
Greece	...	...	...	...	...	...	...	...	...	...	...	...	1991	0.0	...	...
Iceland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ireland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Italy	1992	0.2	...	...	1993	0.10 *n*	...	...	1992	11.00 *n*	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Netherlands	1996	0.3	0.0	0.6	...	...	...	...	1996	3.30	...	...	1991	1.5	1.5	2.3
Norway	...	...	...	...	1996	0.01 *n*	...	...	1992	0.10	...	...	...	...	...	...
Portugal	1995	0.2	...	...	...	...	...	...	1992	5.80	...	...	1991	3.9	...	...

7. HIV prevalence (%) con't.

8. Knowledge and behaviour indicators

Country	Injecting drug users: major urban areas				Don't know that a healthy-looking person can be infected with HIV/AIDS (%) (15–24)		Median age at first sex (20–24)			Reported higher-risk sex for adults (15–49) in the last year (%)			Reported condom use for adults (15–24) at last higher-risk sex (%)		
	Year	Median	Min.	Max.	Female	Year	Male	Female	Year	Male	Female	Year	Male	Female	Year
South & South-East Asia															
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bangladesh	1998	2.5	2.5	2.5	76.6	2000	...	...	...	...	...	...	...	...	...
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	37.6	2000	...	21.9	2000	...	0.1 *x*	2000	...	0.5 *x*	2000
India	1996	3.5	3.5	3.5	~ 26.0	2000	21.0 *b*	18.0 *b*	2001	11.8	2.0	2001	51.2	39.8	2001
Indonesia	...	...	...	...	67.8	2000	...	20.4	1997	...	...	...	...	...	...
Iran (Islamic Republic of)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lao People's Dem. Rep.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	1996	16.8	16.8	16.8	...	...	...	...	...	...	...	...	...	...	...
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Myanmar	2000	47.6	37.1	58.1	...	...	...	...	...	...	...	...	...	...	...
Nepal	2000	50.0	50.0	50.0	71.0	2000	...	19.6	1996	...	...	...	...	...	...
Pakistan	2000	0.0	0.0	0.0	...	...	...	...	...	...	...	...	...	...	...
Philippines	1994	0.0	0.0	0.0	33.1	1999	...	...	1998	16.1	1.3	1990	...	...	...
Singapore	1994	0.2	0.2	0.2	...	...	...	...	...	16.2	1.0	1991	...	...	...
Sri Lanka	...	...	...	...	...	...	...	...	...	4.5	0.6	1997	44.4	...	1997
Thailand	2000	39.6	39.6	39.6	...	...	...	...	...	7.4	3.1	1990	...	...	...
Viet Nam	2000	41.5	33.0	50.0	36.5	2000	...	...	...	12.0 *a*	...	1995	30.0 *a*	...	1995
Eastern Europe & Central Asia															
Armenia	1998	6.3	6.3	6.3	53.0	2000	...	19.7 *z*	2000	18.9	0.6	2000	43.3	.	2000
Azerbaijan	1995	0.0 *n*	...	...	64.4	2000	...	...	...	...	...	...	...	...	...
Belarus	1996	6.7 *n*	...	...	...	...	...	...	...	...	...	...	...	...	...
Bosnia and Herzegovina	...	...	...	...	26.4	2000	...	...	...	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...	...	18.7	1997	...	...	...	...	...	...
Croatia	1996	0.0 *n*	...	...	...	...	...	...	...	...	...	...	...	...	...
Czech Republic	1996	0.0 *n*	...	...	...	...	...	...	...	30.5	21.7	1994	41.3	35.0	1994
Estonia	...	...	...	...	...	...	...	18.4	1994	...	...	...	...	...	...
Georgia	...	...	...	...	53.7	2000	...	...	...	51.6 *u*	0.8 *u*	1997	79.1 *u*	...	1997
Hungary	...	...	...	...	...	...	18.0	18.5	1993	...	...	...	...	...	...
Kazakhstan	...	...	...	...	37.0	1999	18.6	20.0	1999	29.7	15.5	1999	58.3	18.7	1999
Kyrgyzstan	...	...	...	...	...	...	...	19.5	1997	...	...	...	...	...	...
Latvia	1997	0.0 *n*	...	...	...	...	18.2	18.5	1995	20.0	10.0	1997	69.0	66.3	1997
Lithuania	...	...	...	...	...	...	18.6	19.5	1995	...	...	...	...	...	...
Poland	1996	5.0 *n*	...	...	...	...	19.7	19.6	1991	...	...	...	...	...	...
Republic of Moldova	1996	1.1 *n*	...	...	21.2	2000	...	...	...	...	...	...	...	...	...
Romania	...	...	...	...	30.6	1999	17.3	19.5	1999	...	...	...	...	...	...
Russian Federation	1998	0.4 *n*	...	...	...	...	...	...	...	...	...	...	...	...	...
Slovakia	1996	0.0 *n*	...	...	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	...	...	...	...	92.1	2000	...	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	58.0	2000	...	21.6 *b*	2000	...	4.5 *x*	2000	...	...	...
Ukraine	1998	8.6 *n*	...	...	34.0	2000	...	...	...	...	19.7	1999	...	...	...
Uzbekistan	...	...	...	...	59.0	2000	...	19.7	1996	...	...	...	...	...	...
Western Europe															
Albania	...	...	...	...	59.8	2000	...	...	...	...	...	...	...	...	...
Austria	1990	27.0	13.5	44.0	...	...	...	...	...	...	...	...	38.0 *a*	...	1992
Belgium	1989	4.0	4.0	4.0	...	...	18.1	18.7	1992	...	...	...	...	...	...
Denmark	...	...	...	...	...	...	17.5	17.0	1989	...	...	...	...	...	...
Finland	1995	0.1 *n*	...	...	...	...	18.0	18.0	1992	...	...	...	...	...	...
France	1990	3.0	...	...	...	...	17.9	18.4	1998	13.3	5.6	1990	64.7	50.2	1993
Germany	...	...	...	...	...	...	...	...	...	12.0	5.0	1990	...	...	...
Greece	1995	0.4	...	...	...	...	17.5	19.0	1990	22.1	5.8	1990	...	...	...
Iceland	...	...	...	...	...	...	16.8	16.9	1992	...	...	...	...	...	...
Ireland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Italy	1993	33.6	7.0	36.8	...	...	18.7	21.7	1996	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Netherlands	1996	5.1	...	...	...	...	18.3	18.3	1989	18.0	7.0	1989	...	...	...
Norway	...	...	...	...	...	...	18.3	17.6	1992	14.5	8.8	1992	8.4	5.3	1992
Portugal	1996	15.2	...	...	...	...	17.4	19.8	1997	...	...	...	...	...	...

	1. Estimated number of people living with HIV/AIDS, end 2001					2. AIDS orphans 2001	3. AIDS deaths 2001	4. Population 2001 (thousands)	
Country	Adults and children	Adults (15–49)	Adults (15–49) rate (%)	Women (15–49)	Children (0–14)	Orphans (0–14) currently living	Deaths Adults and children	Total	Adults (15–49)
Slovenia	280	280	<0.1	<100	<100	...	<100	1,985	1,047
Spain	130,000	130,000	0.5	26,000	1,300	...	2,300	39,921	20,794
Sweden	3,300	3,300	0.1	880	<100	...	<100	8,833	4,012
Switzerland	19,000	19,000	0.5	6,000	300	...	<100	7,170	3,437
TFYR Macedonia	<100	<100	<0.1	<100	<100	...	<100	2,044	1,079
United Kingdom	34,000	34,000	0.1	7,400	550	...	460	59,542	28,559
Yugoslavia	10,000	10,000	0.2	...	...	...	<100	10,538	5,341
North Africa & Middle East	**500,000**	**460,000**	**0.3**	**250,000**	**35,000**	**65,000**	**30,000**	**349,142**	**180,506**
Algeria	...	13,000*	0.1*	...	...	...	...	30,841	16,779
Bahrain	<1000	<1000	0.3	150	...	...	...	652	390
Cyprus	<1000	<1000	0.3	150	...	...	...	790	396
Egypt	8,000	8,000	<0.1	780	...	...	...	69,080	36,301
Iraq	<1000	<1000	<0.1	150	...	...	...	23,584	11,527
Israel	...	2,700	0.1	...	...	...	...	6,172	3,067
Jordan	<1000	<1000	<0.1	150	...	...	...	5,051	2,561
Kuwait	...	...	...	...	...	...	...	1,971	1,123
Lebanon	...	...	...	...	...	...	...	3,556	1,949
Libyan Arab Jamahiriya	7,000	7,000	0.20	1,100	...	...	...	5,408	2,952
Morocco	13,000	13,000	0.10	2,000	...	...	...	30,430	16,373
Oman	1,300	1,300	0.10	200	...	...	...	2,622	1,211
Qatar	...	...	...	...	...	...	...	575	350
Saudi Arabia	...	...	...	...	...	...	...	21,028	9,667
Sudan	450,000	410,000	2.60	230,000	30,000	62,000	23,000	31,809	15,496
Syrian Arab Republic	...	...	...	...	...	...	...	16,610	8,481
Tunisia	...	...	...	...	...	...	...	9,562	5,392
Turkey	...	3,700*	<0.1*	...	...	...	...	67,632	36,857
United Arab Emirates	...	...	...	...	...	...	...	2,654	1,533
Yemen	9,900	9,900	0.1	1,500	...	...	...	19,114	8,098
North America	**950,000**	**940,000**	**0.6**	**190,000**	**10,000**	**320,000**	**15,000**	**316,941**	**161,413**
Canada	55,000	55,000	0.3	14,000	<500	-0	<500	31,015	16,164
United States of America	900,000	890,000	0.6	180,000	10,000	-0	15,000	285,926	145,249
Caribbean	**420,000**	**400,000**	**2.3**	**210,000**	**20,000**	**250,000**	**40,000**	**32,489**	**17,183**
Bahamas	6,200	6,100	3.5	2,700	<100	2,900	610	308	170
Barbados	...	2,000*	1.2*	...	...	...	...	268	154
Cuba	3,200	3,200	<0.1	830	<100	1,000	120	11,237	6,121
Dominican Republic	130,000	120,000	2.5	61,000	4,700	33,000	7,800	8,507	4,561
Haiti	250,000	240,000	6.1	120,000	12,000	200,000	30,000	8,270	4,053
Jamaica	20,000	18,000	1.2	7,200	800	5,100	980	2,598	1,376
Trinidad and Tobago	17,000	17,000	2.5	5,600	300	3,600	1,200	1,300	748
Latin America	**1,500,000**	**1,400,000**	**0.5**	**430,000**	**40,000**	**330,000**	**60,000**	**488,031**	**262,151**
Argentina	130,000	130,000	0.7	30,000	3,000	25,000	1,800	37,488	18,741
Belize	2,500	2,200	2.0	1,000	180	950	300	231	119
Bolivia	4,600	4,500	0.1	1,200	160	1,000	290	8,516	4,131
Brazil	610,000	600,000	0.7	220,000	13,000	130,000	8,400	172,559	96,894
Chile	20,000	20,000	0.3	4,300	<500	4,100	220	15,402	8,121
Colombia	140,000	140,000	0.4	20,000	4,000	21,000	5,600	42,803	23,003
Costa Rica	11,000	11,000	0.6	2,800	320	3,000	890	4,112	2,204
Ecuador	20,000	19,000	0.3	5,100	660	7,200	1,700	12,880	6,874
El Salvador	24,000	23,000	0.6	6,300	830	13,000	2,100	6,400	3,289
Guatemala	67,000	63,000	1.0	27,000	4,800	32,000	5,200	11,687	5,459
Guyana	18,000	17,000	2.7	8,500	800	4,200	1,300	763	432
Honduras	57,000	54,000	1.6	27,000	3,000	14,000	3,300	6,575	3,214
Mexico	150,000	150,000	0.3	32,000	3,600	27,000	4,200	100,368	54,019
Nicaragua	5,800	5,600	0.2	1,500	210	2,000	400	5,208	2,539
Panama	25,000	25,000	1.5	8,700	800	8,100	1,900	2,899	1,549
Paraguay	...	...	...	...	...	...	...	5,636	2,836
Peru	53,000	51,000	0.4	13,000	1,500	17,000	3,900	26,093	13,878
Suriname	3,700	3,600	1.2	1,800	190	1,700	330	419	238
Uruguay	6,300	6,200	0.3	1,400	100	3,100	<500	3,361	1,625
Venezuela	...	62,000*	0.5*	...	...	...	...	24,632	12,985

	5. Ranges of uncertainty around estimates						6. HIV prevalence rate (%) in young people (15–24)			
	Adults and children living with HIV/AIDS, end 2001		Deaths in adults (15–49) 2001		Deaths in children (0–14) 2001		Female		Male	
Country	Low estimate	High estimate	Low estimate	High estimate	Low estimate	High estimate	Low estimate	High estimate	Low estimate	High estimate
Slovenia	170	390	<100	<100	<100	<100	0.00	0.00	0.00	0.00
Spain	100,000	150,000	1,800	2,600	...	...	0.19	0.29	0.41	0.62
Sweden	2,600	4,000	<100	<100	...	...	0.04	0.05	0.05	0.08
Switzerland	15,000	23,000	<100	<100	<100	<100	0.32	0.47	0.37	0.55
TFYR Macedonia	<100	<100	<100	<100	...	...	0.00	0.00	0.00	0.00
United Kingdom	27,000	41,000	360	540	<100	<100	0.04	0.06	0.08	0.12
Yugoslavia	...	...	...	...	...	...	...	...	...	...
North Africa & Middle East	**320,000**	**680,000**	**16,000**	**32,000**	**3,900**	**8,100**	**0.23**	**0.41**	**0.08**	**0.15**
Algeria	8,600	18,000	...	...	...	...	...	...	...	...
Bahrain	...	...	...	...	...	...	...	...	...	...
Cyprus	...	...	...	...	...	...	...	...	...	...
Egypt	3,000	8,200	...	...	...	...	...	...	...	...
Iraq	650	1,400	...	...	...	...	...	...	...	...
Israel	...	...	...	...	...	...	...	...	...	...
Jordan	...	...	...	...	...	...	...	...	...	...
Kuwait	...	...	...	...	...	...	...	...	...	...
Lebanon	...	...	...	...	...	...	...	...	...	...
Libyan Arab Jamahiriya	4,600	9,500	...	...	...	...	...	...	...	...
Morocco	8,600	18,000	...	...	...	...	...	...	...	...
Oman	850	1,800	...	...	...	...	...	...	...	...
Qatar	...	...	...	...	...	...	...	...	...	...
Saudi Arabia	...	...	...	...	...	...	...	...	...	...
Sudan	280,000	580,000	11,000	23,000	3,900	8,100	2.04	4.23	0.70	1.46
Syrian Arab Republic	...	...	...	...	...	...	...	...	...	...
Tunisia	...	...	...	...	...	...	...	...	...	...
Turkey	...	...	...	...	...	...	...	...	...	...
United Arab Emirates	...	...	...	...	...	...	...	...	...	...
Yemen	6,400	13,000	...	...	...	...	...	...	...	...
North America	**760,000**	**1,100,000**	**12,000**	**18,000**	**<100**	**<100**	**0.16**	**0.29**	**0.33**	**0.58**
Canada	44,000	66,000	<500	<500	<100	<100	0.14	0.21	0.22	0.33
United States of America	720,000	1,100,000	12,000	18,000	<100	<100	0.18	0.27	0.38	0.57
Caribbean	**290,000**	**520,000**	**23,000**	**44,000**	**4,600**	**9,000**	**1.78**	**3.17**	**1.42**	**2.43**
Bahamas	4,600	9,500	360	740	<100	<100	1.97	4.09	1.72	3.56
Barbados	...	...	...	...	...	...	...	...	...	...
Cuba	2,100	4,400	120	180	<100	<100	0.03	0.06	0.06	0.12
Dominican Republic	100,000	150,000	5,600	8,300	720	1,100	2.22	3.30	1.69	2.51
Haiti	190,000	390,000	16,000	32,000	3,700	7,700	3.22	6.69	2.64	5.48
Jamaica	13,000	22,000	690	1,000	<100	130	0.69	1.03	0.66	0.98
Trinidad and Tobago	15,000	30,000	690	1,400	<100	140	2.09	4.37	1.56	3.27
Latin America	**1,200,000**	**1,800,000**	**42,000**	**80,000**	**3,500**	**6,600**	**0.26**	**0.46**	**0.39**	**0.69**
Argentina	110,000	170,000	1,500	4,500	<100	200	0.27	0.40	0.69	1.03
Belize	2,300	3,400	220	330	<100	<100	1.59	2.39	0.88	1.32
Bolivia	3,000	6,200	170	350	<100	<100	0.04	0.07	0.07	0.15
Brazil	490,000	730,000	7,000	20,000	330	1,500	0.38	0.58	0.51	0.77
Chile	11,000	23,000	160	1,000	<100	<100	0.08	0.17	0.23	0.48
Colombia	94,000	190,000	3,400	7,000	250	520	0.12	0.25	0.55	1.15
Costa Rica	7,200	15,000	540	1,100	<100	<100	0.18	0.36	0.38	0.79
Ecuador	13,000	27,000	1,000	2,100	<100	170	0.10	0.20	0.20	0.41
El Salvador	16,000	32,000	1,200	2,600	<100	210	0.23	0.48	0.50	1.04
Guatemala	44,000	91,000	2,800	5,800	590	1,200	0.55	1.14	0.59	1.22
Guyana	11,000	24,000	750	1,600	<100	200	2.60	5.41	2.13	4.43
Honduras	46,000	68,000	2,100	3,200	540	810	1.20	1.80	0.96	1.44
Mexico	97,000	170,000	3,600	8,000	<100	600	0.07	0.12	0.26	0.47
Nicaragua	3,800	7,800	230	480	<100	<100	0.05	0.10	0.15	0.31
Panama	18,000	33,000	1,200	2,200	<100	<100	0.90	1.60	1.35	2.40
Paraguay	...	...	...	...	...	...	...	...	...	0.16
Peru	38,000	68,000	2,600	4,600	210	370	0.13	0.23	0.30	0.53
Suriname	2,400	5,100	190	400	<100	<100	0.99	2.05	0.79	1.64
Uruguay	5,000	7,500	<500	<500	<100	<100	0.16	0.24	0.42	0.63
Venezuela	...	...	...	...	...	...	...	...	...	0.74

7. HIV prevalence (%), selected populations

	Women in antenatal care clinics: urban areas				Women in antenatal care clinics: outside major urban areas				Male STI patients: major urban areas				Female sex workers: major urban areas			
Country	**Year**	**Median**	**Min.**	**Max.**	**Year**	**Median**	**Min.**	**Max.**	**Year**	**Median**	**Min.**	**Max.**	**Year**	**Median**	**Min.**	**Max.**
Slovenia	...	...	...	...	1995	0.00 *n*	...	...	1996	0.00 *n*	...	...	...	...	...	...
Spain	1997	0.1	0.1	0.2	1996	0.15 *n*	...	...	1995	5.80 *n*	0.70	7.80	1995	2.0 *n*	...	...
Sweden	...	...	...	...	1995	0.01 *n*	...	...	1991	0.17 *n*	...	...	...	...	...	...
Switzerland	...	...	...	...	...	...	...	...	1997	1.80	0.00	10.3	...	...	...	...
TFYR Macedonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
United Kingdom	1997	0.2	0.0	0.5	1997	0.0	0.0	0.1	1997	0.70	...	...	1991	0.0	...	...
Yugoslavia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North Africa & Middle East																
Algeria	...	...	...	...	...	...	...	...	...	...	...	...	1988	1.2	0.4	1.9
Bahrain	1998	0.2	0.2	0.2	...	...	...	...	1998	0.00	0.00	0.00	...	...	...	...
Cyprus	...	...	...	...	1999	0.0	0.0	0.0	...	...	...	...	...	...	...	...
Egypt	1996	0.0	0.0	0.0	1993	0.0	0.0	0.0	1999	0.00	0.00	0.00	1999	0.0	0.0	0.0
Iraq	...	...	...	...	1999	0.0	0.0	0.0	...	...	...	...	...	...	...	...
Israel	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jordan	...	...	...	...	1999	0.0	0.0	0.0	...	...	...	...	...	...	...	...
Kuwait	1998	0.0	0.0	0.0	1999	0.0	0.0	0.0	1997	0.00	0.00	0.00	...	...	...	...
Lebanon	...	...	...	...	1995	0.0	0.0	0.0	...	...	...	...	...	...	...	...
Libyan Arab Jamahiriya	...	...	...	...	1998	0.0	0.0	0.0	...	...	...	...	...	...	...	...
Morocco	1999	0.1	0.0	0.7	1999	0.0	0.0	0.0	1999	0.40	0.10	1.30	...	...	...	...
Oman	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Qatar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saudi Arabia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sudan	1998	0.5	0.5	0.5	1998	3.8	3.5	4.0	...	...	...	...	...	...	...	...
Syrian Arab Republic	1993	0.0	0.0	0.0	...	...	...	...	1999	0.00	0.00	0.00	1999	0.0	0.0	0.0
Tunisia	2000	0.2	0.2	0.2	1999	0.0	0.0	0.0	...	...	...	...	1999	0.0	0.0	0.0
Turkey	...	...	...	...	...	...	...	...	1992	0.10	...	...	1995	0.0 *n*	...	...
United Arab Emirates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yemen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North America																
Canada	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
United States of America	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Caribbean																
Bahamas	1995	3.6	3.6	3.6	1993	3.6	3.6	3.6	1990	8.40	8.40	8.40	1990	44.4	44.4	44.4
Barbados	1996	1.1	1.1	1.1	...	...	...	...	1988	4.70	4.70	4.70	...	...	...	...
Cuba	1996	0.0	0.0	0.0	...	...	...	...	1991	0.00	0.00	0.00	...	...	...	...
Dominican Republic	1999	1.2	1.2	1.2	1999	2.1	1.1	4.5	1999	4.40	4.40	4.40	1999	3.5	2.4	6.6
Haiti	2000	3.8	3.8	3.8	2001	3.4	0.0	6.1	2000	15.0	15.0	15.0	1992	65.0	65.0	65.0
Jamaica	1997	1.0	1.0	1.0	...	...	...	...	2000	3.00	3.00	3.00	1997	5.0	5.0	5.0
Trinidad and Tobago	1999	3.4	3.0	3.8	...	...	...	...	1996	5.80	5.80	5.80	1988	13.0	13.0	13.0
Latin America																
Argentina	1998	0.9	0.3	1.2	1998	0.2	0.0	0.5	1998	10.8	10.8	10.80	1993	2.6	2.6	2.6
Belize	1995	2.3	2.3	2.3	2000	1.4	1.4	1.4	...	...	...	...	...	...	...	...
Bolivia	1997	0.5	0.5	0.5	1988	0.0	0.0	0.0	1997	2.00	2.00	2.00	1997	0.0	0.0	0.0
Brazil	2000	1.6	0.1	4.0	2000	0.4	0.4	0.4	1996	1.50	1.00	1.90	1998	17.8	17.8	17.8
Chile	1999	0.1	0.1	0.1	1999	0.0	0.0	0.0	1999	3.50	3.50	3.50	...	...	...	...
Colombia	2000	0.1	0.1	0.1	2000	0.1	0.1	0.2	2000	0.10	0.10	0.10	1994	0.9	0.6	1.1
Costa Rica	1997	0.3	0.3	0.3	1997	0.1	0.1	0.1	1994	3.10	3.10	3.10	1995	0.9	0.9	0.9
Ecuador	2001	0.7	0.0	1.3	...	...	...	...	1993	3.60	3.60	3.60	2001	1.1	1.0	1.7
El Salvador	1997	0.2	0.2	0.3	...	...	...	...	1996	5.70	5.30	6.00	1993	1.1	1.1	1.1
Guatemala	1998	0.9	0.4	1.4	1999	0.0	0.0	1.0	1991	0.70	0.70	0.70	1998	4.7	4.7	4.7
Guyana	1997	3.8	3.8	3.8	...	...	...	...	1997	25.0	25.0	25.0	2000	45.0	45.0	45.0
Honduras	1998	2.9	0.7	5.0	1998	3.0	3.0	3.0	1991	11.2	11.2	11.2	1999	7.7	7.7	7.7
Mexico	1994	0.6	0.6	0.6	...	...	...	...	2000	17.4	17.4	17.4	1999	0.3	0.3	0.3
Nicaragua	...	...	...	...	...	...	...	...	...	...	...	...	1990	1.6	1.6	1.6
Panama	1994	0.3	0.3	0.3	1997	0.9	0.9	0.9	...	...	...	...	...	...	...	...
Paraguay	1992	0.0	0.0	0.0	...	...	...	...	...	...	...	...	1987	0.1	0.1	0.1
Peru	1999	0.3	0.3	0.3	1999	0.0	0.0	0.0	1990	18.7	18.7	18.7	1998	1.6	1.6	1.6
Surinam	1998	1.4	1.4	1.4	...	...	...	...	1990	1.10	1.10	1.10	1990	2.6	2.6	2.6
Uruguay	1991	0.0	0.0	0.0	1991	0.0	0.0	0.0	1991	1.30	1.30	1.30	1997	0.5	0.5	0.5
Venezuela	1996	0.0	0.0	0.0	1996	0.0	0.0	0.0	...	...	...	...	1996	1.1	1.1	1.1

7. HIV prevalence (%) con't.

8. Knowledge and behaviour indicators

Country	Injecting drug users: major urban areas				Don't know that a healthy-looking person can be infected with HIV/AIDS (%) (15–24)		Median age at first sex (20–24)			Reported higher-risk sex for adults (15–49) in the last year (%)			Reported condom use for adults (15–24) at last higher-risk sex (%)		
	Year	Median	Min.	Max.	Female	Year	Male	Female	Year	Male	Female	Year	Male	Female	Year
Slovenia	1996	0.6	...	...	...	...	17.0	18.0	1994	12.4	6.2	1996	16.9	17.9	1996
Spain	1996	31.0	...	...	...	...	18.7	20.1	1995	18.0	4.8	1995	49.4 *e*	32.5	1996
Sweden	1995	5.3	...	...	...	...	...	17.1	mid-1990s	13.0	7.0	1989	...	...	...
Switzerland	1997	1.4	0.0	16.7	...	...	18.3	18.6	1994	15.9	8.1	1994	56.7	36.9	1994
TFYR Macedonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
United Kingdom	1997	3.4	...	...	...	...	17.1	17.4	1991	26.9	6.8	1991	23.2	17.5	1991
Yugoslavia	...	...	...	...	34.8	2000	...	...	...	36.3	16.7	1997	35.7	44.0	1997
North Africa & Middle East															
Algeria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bahrain	1999	0.0	0.0	0.0	...	...	...	...	...	...	...	...	...	...	...
Cyprus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Egypt	1999	0.0	0.0	0.0	...	...	...	...	...	...	...	...	...	...	...
Iraq	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Israel	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jordan	...	...	...	...	43.0	1997	...	...	...	...	...	...	...	...	...
Kuwait	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lebanon	...	...	...	...	...	...	...	...	...	22.4*a*	...	1996	69.3*a*	...	1996
Libyan Arab Jamahiriya	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Morocco	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oman	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Qatar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saudi Arabia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sudan	...	...	...	...	...	...	...	...	...	3.0	1.0	1995	20.0	16.7	1995
Syrian Arab Republic	1999	0.0	0.0	0.0	...	...	...	...	...	...	...	...	...	...	...
Tunisia	1997	0.3	0.3	0.3	...	...	...	...	...	...	...	...	...	...	...
Turkey	1992	0.0	0.0	0.0	37.8	1998	...	...	...	...	...	...	...	...	...
United Arab Emirates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yemen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North America															
Canada	...	...	...	...	...	...	...	17.8	mid-1990s	8.4	6.0	1997	72.3	71.9	1997
United States of America	...	...	...	...	...	...	...	17.2	mid-1990s	11.0*amx*	...	1997	65.0 *amx*	...	1997
Caribbean															
Bahamas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Barbados	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cuba	...	...	...	...	9.6	2000	...	...	...	48.6	14.4	1996	...	...	...
Dominican Republic	...	...	...	...	11.2	2000	...	18.7	1996	14.8 *k*	9.8	1995	44.5	12.4	1996
Haiti	...	...	...	...	32.0	2000	...	18.2	2000	55.4	31.9	2000	25.5 *h*	14.4 *h*	2000
Jamaica	...	...	...	...	...	...	...	17.1	1997	...	...	...	...	38.3	1997
Trinidad and Tobago	...	...	...	...	5.1	2000	...	19.4	1987	...	...	...	...	...	...
Latin America															
Argentina	1995	92.0	92.0	92.0	...	...	...	...	...	...	...	...	< 55.0 a	...	1995
Belize	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bolivia	...	...	...	...	45.6	2000	...	19.6	1998	28.3 *k*	...	1999	36.4 *h*	12.8 *h*	1998
Brazil	1999	42.0	42.0	42.0	21.0	1996	...	18.7	1996	37.9 *w*	14.1	1996	56.0	30.3	1996
Chile	...	...	...	...	...	...	...	...	...	28.0	6.0	1997	33.0	18.0	1997
Colombia	...	...	...	...	15.8	2000	...	18.4	2000	...	29.1 *x*	2000	...	23.0 *h*	2000
Costa Rica	...	...	...	...	...	...	...	...	...	21.4	12.5	1995	55.3	42.0	1995
Ecuador	...	...	...	...	41.0	1999	...	19.3	1999	...	...	...	...	...	...
El Salvador	...	...	...	...	32.0	1998	...	18.7	1998	...	...	...	...	...	...
Guatemala	...	...	...	...	56.0	1995	...	19.0	1999	...	...	...	...	4.36	1999
Guyana	...	...	...	...	15.8	2000	...	...	...	...	...	...	...	...	...
Honduras	...	...	...	...	22.2	1996	15.7	18.4	1996	...	...	...	...	...	...
Mexico	...	...	...	...	...	...	...	20.7	1987	15.4	...	1997	62.8 *a*	...	1997
Nicaragua	...	...	...	...	25.4	1998	15.8	18.1	1998	...	...	...	...	6.4 *h*	1998
Panama	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Paraguay	...	...	...	...	26.7 *d*	1998	...	17.9	1996	...	...	...	...	79.1	1996
Peru	1990	28.1	28.1	28.1	28.2	2000	...	19.6	2000	13.6	1.5	1996	41.6 *e*	17.9	2000
Suriname	...	...	...	...	29.8	2000	...	...	...	...	...	...	...	...	...
Uruguay	1997	24.4	24.4	24.4	...	...	...	...	...	...	...	...	...	...	...
Venezuela	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Key to table of country-specific HIV/AIDS estimates and data, end 2001

a the proportion of both sexes combined

m the median of a number of subnational surveys

u urban samples

x underestimation of true value due to survey methodology

w 15–59-year-olds

* No country-specific models provided

HIV prevalence rate (%), data from selected populations

r data from rural studies

n a nationwide number without rural-urban breakdown

Don't know a healthy-looking person can be infected with HIV/AIDS (15–24) (%)

b 15–49-year-olds

c 15–19-year-olds

d 15–35-year-olds

Median age when first sexually active (20–24)

b 15–49-year-old females; 15–54-year-old males

z 25–29-year-olds

Reported higher-risk sex for adults (15–49) in the last year (%)

r non-cohabiting regular partners who are assumed to be 'high-risk'

k 15–64-year-olds

Reported condom use for adults (15–49) during last higher-risk sexual act (%)

e an older survey (based on the 1–4 years preceding the stated survey)

h only those people who have heard of AIDS

r non-cohabiting regular partners who are assumed to be 'high-risk'

Annex 1:

HIV/AIDS estimates and data, end 2001

The estimates and data provided in the preceding table relate to the end of 2001 unless stated otherwise. UNAIDS/WHO have produced and compiled these estimates, which have been shared with national AIDS programmes for review and comments, but are not necessarily the official estimates used by national governments. For countries where no recent data were available, country-specific estimates have not been listed in the table. However, regional models of older data have been used to produce minimum estimates for these countries, and they are then used to calculate regional totals.

The estimates are given in rounded numbers. However, unrounded numbers were used in the calculation of rates and regional totals, so there may be minor discrepancies between the regional/global totals and the sum of the country figures.

The general methodology used to produce the country-specific estimates in the table has been described in full elsewhere[1]. The estimates produced by UNAIDS/WHO are based on methods and parameters that draw on advice given by the UNAIDS Reference group on HIV/AIDS Estimates, Modelling and Projections. This group is made up of leading researchers in HIV/AIDS, epidemiology, demography and related areas. The group reviews the most recent work (published and unpublished) provided by research studies in various countries, as well as advances in the understanding of HIV/AIDS epidemics. It then suggests methods to improve the quality and accuracy of the estimates. In addition, based on suggestions from the reference group, new software has been developed with which to model the course of HIV epidemics and their impact. These changes in procedures and assumptions have made possible the improved estimates of HIV/AIDS for 2001. However, this also makes direct comparisons between earlier estimates (end of year 1999) and the current estimates difficult. (The reference group's recommendations that have been implemented in these estimates are described in a forthcoming paper[2].)

Adults in this report are defined as men and women aged 15–49. This age range captures those in their most sexually active years. While the risk of HIV infection continues beyond the age of 50, the vast majority of people with substantial risk behaviour are likely to have become infected by this age. Since population structures differ greatly from one country to another, especially for children and the upper adult ages, the restriction of 'adults' to 15–49-year-olds has the advantage of making different populations more comparable. This age range has been used as the denominator in calculating the adult HIV prevalence rate, and is also consistent with previous estimates.

[1] Schwartländer B et al. (1999) Country-specific estimates and models of HIV and AIDS: methods and limitations. *AIDS*, 13: 2445-2458.

[2] The UNAIDS Reference Group on Estimates (2002) Modelling and Projections. Improved methods and assumptions for estimation of the HIV/AIDS epidemic and its impact: Recommendations of the UNAIDS Reference Group on Estimates, Modelling and Projections. *AIDS* (in press).

Notes on specific indicators listed in the table

1. Estimated number of people living with HIV/AIDS, end 2001

These estimates include all people with HIV infection, whether or not they have developed symptoms of AIDS, alive at the end of 2001. For country estimates marked with an asterisk, not enough data were available to produce an estimate of HIV prevalence for end 2001. For each of these countries, the 1999 prevalence rate published by UNAIDS was applied to the country's 2001 adult population to produce the estimates given in the table. No country-specific models were produced for countries marked with an asterisk. For some countries where insufficient data from the last six years were available, no estimates were made. For data columns containing few or no country estimates, the regional totals were calculated on the basis of a regional model.

Adults and children

Estimated number of adults and children living with HIV/AIDS at the end of 2001 Children are defined as those aged 0–14.

Adults (15–49)

Estimated number of adults living with HIV/AIDS at the end of 2001.

Adult (15–49) rate (%)

To calculate the adult HIV prevalence rate, the estimated number of adults living with HIV/AIDS at the end of 2001 was divided by the 2001 adult population (aged 15–49).

Women (15–49)

Estimated number of women living with HIV/AIDS at the end of 2001.

Children (0–14)

Estimated number of children under the age of 15 living with HIV/AIDS at the end of 2001.

2. AIDS orphans, 2001

Orphans, currently living

Estimated number of children aged 0–14, as of end 2001, who have lost one or both parents to AIDS.

3. AIDS deaths, 2001

Adults and children

Estimated number of adults and children who died of AIDS during 2001.

4. Population, 2001

Total (thousands)

Total population in 2001 (*World Population Prospects: the 2000 Revision*, UN Population Division, Department of Economic and Social Affairs, United Nations Secretariat).

Adult (15–49) (thousands)

Population aged 15–49 in 2001 (*World Population Prospects: the 2000 Revision*, UN Population Division, Department of Economic and Social Affairs, United Nations Secretariat).

5. Ranges of uncertainty around prevalence and mortality estimates

The best estimates of HIV prevalence and AIDS deaths are given under indicators 1 and 3 (see above). Depending on the reliability of the data available, there may be more or less uncertainty surrounding each such estimate. Indicator 5 therefore presents both low and high estimates for certain variables. The wider the range, the greater the uncertainty surrounding the country's estimates, which in turn depends mainly on the quality, coverage and consistency of the country's surveillance system. While a measure of uncertainty applies to all estimates, ranges of uncertainty in this report are presented for the following key variables:

- the estimated number of adults and children living with HIV/AIDS at the end of 2001;
- the estimated number of AIDS deaths in adults (15–49) during 2001; and
- the estimated number of AIDS deaths in children (0–14) during 2001.

6. Estimated HIV prevalence rate (%) among young people (15–24), end 2001

The prevalence rate was calculated by dividing the estimated number of young people (15–24) living with HIV/AIDS at the end of 2001 by the 2001 population of young people (15–24). These country-specific estimates have not been produced or approved by national programmes, and are expressed as a range generated by regional modelling.

7. HIV prevalence rate (%), data from selected populations

Percentage of people tested in each group who were found to be infected with HIV. Most of these data are from routine sentinel surveillance. For each of the groups, the table gives the year of the most recent report, the median for all surveillance sites, the minimum and the maximum. Data from surveillance among pregnant women at antenatal care clinics are separated into urban populations and populations living outside major urban areas. Truly rural areas often have no sentinel surveillance sites at all. Nearly all the data on groups with high-risk behaviour, such as injecting drug use and sex work, come from studies in urban areas. Data marked with an 'r' are from rural studies, often conducted in small towns outside major urban centres. An 'n' denotes a nationwide number that does not allow for a rural-urban breakdown.

8. Knowledge and behaviour indicators

Before 2000, the definition of 'high-risk sex' varied between surveys and thus the values presented should be considered as indicative of the risk level in the respective countries. Attempts have been made to present stan dardized results, but the values given should not be used to compare risk levels between countries.

Don't know a healthy-looking person can be infected with HIV/AIDS (15–24) (%)

The percentage of female respondents (15–24) surveyed who don't know that a healthy-looking person can be infected with HIV/AIDS. A 'b' denotes 15–49-year-olds, a 'c' 15–19-year-olds, and a 'd' 15–35-year-olds.

Median age when first sexually active (20–24)

The age by which one-half of young men or young women aged 20–24 have had first penetrative sex (median age), of all young people surveyed. A 'b' denotes 15–49-year-old females and 15–54-year-old males; a 'w' denotes 15–59-year-olds, and a 'z' 25–29-year-olds.

Reported higher-risk sex for adults (15–49) in the last year (%)

Proportion of adult respondents (female 15–49, male 15–54) who had sex with a non-marital, non-cohabiting partner in the preceding 12 months, of all respondents reporting sexual activity in that time frame. An 'a' denotes the proportion of both sexes combined. An 'm' denotes the median of a number of subnational surveys. For countries marked with an 'r', non-cohabiting regular partners are assumed to be 'high-risk'. Urban samples are marked with a 'u'. A 'k' denotes 15–64-year-olds. A 'w' denotes 15–59-year-olds. An 'x' denotes an underestimate of true value due to survey methodology.

Reported condom use for adults (15–49) during last higher-risk sexual act (%)

The percentage of adult respondents (female 15–49, male 15–54) who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the preceding 12 months. An 'a' denotes the proportion of both sexes combined. An 'e' denotes an older survey (carried out 1–4 years before the stated survey). A 'h' denotes only those people who have heard of AIDS. An 'm' denotes the median of a number of subnational surveys. For countries marked with an 'r', non-cohabiting regular partners are assumed to be 'high-risk'. Urban samples are marked with a 'u'. An 'x' denotes an underestimate of true value due to survey methodology.

Annex 2:

Key to Table 1

Sources (by column)

b,c,d,e, f,g — Country Sentinel Surveillance Reports (1997–2002) and HIV/AIDS Surveillance Database; US Census Bureau; International Programs Center; Health Studies Branch, 2002.

h,i,j,k,l — UNICEF Multi-Indicator Cluster Surveys (MICS), UNICEF (1999–2001); Demographic & Health Surveys, Macro International (1997–2001).

m,n,o,p — Demographic & Health Surveys, Macro International (1998–2001); Country-specific surveys.

q, r, t, v — UNICEF Multi-Indicator Cluster Surveys (MICS), UNICEF (1999–2001); Demographic & Health Surveys, Macro International (1997–2001).

s — UNAIDS/UNICEF, 2002.

u — UNAIDS/UNICEF orphan estimates, 2001/2002.

Explanation

a — 14–49-year-old age group

b — Year of data collection by sentinel surveillance, major urban areas (MUAs). [Countries with [n] or [u] are not median values but averages for all tested women combined from different sites. The averages are not necessarily weighted in all countries.]

c — % of blood samples taken from women (aged 15–19) who test positive for HIV during routine sentinel surveillance at selected antenatal clinics in MUAs.

d — % of blood samples taken from women (aged 20–24) who test positive for HIV during routine sentinel surveillance at selected antenatal clinics in MUAs.

e — Year of data collection by sentinel surveillance, outside major urban areas (OMUAs) [Countries with [n] or [r] are not median values but averages for all tested women combined from different sites. The averages are not necessarily weighted in all countries.]

f — % of blood samples taken from women (aged 15–19) who test positive for HIV during routine sentinel surveillance at selected antenatal clinics in OMUAs.

g — % of blood samples taken from women (aged 20–24) who test positive for HIV during routine sentinel surveillance at selected antenatal clinics in OMUAs.

h — % of young women (aged 15–24) who have heard of AIDS.

i — % of young women (aged 15–24) who, in response to a prompted question, say that a person can reduce their risk of contracting HIV by using condoms. Denominator includes respondents who have not heard of AIDS.

j — % of young women (aged 15–24) who, in response to a prompted question, say that a person can reduce their risk of contracting HIV by having sex only with one faithful, uninfected partner. Denominator includes respondents who have not heard of AIDS.

k — % of young women (aged 15–24) who know that a healthy-looking person can transmit HIV. Denominator includes respondents who have not heard of AIDS.

l — % of young women (aged 15–24) who correctly reject the two most common local misconceptions about HIV transmission or prevention, and who know that a healthy-looking person can transmit the virus. Denominator includes respondents who have not heard of AIDS.

m — % of men (aged 15–59) who, in the preceding 12 months, had sex with a non-marital, non-cohabiting partner (of all respondents reporting sexual activity in the preceding 12 months).

n — % of women (aged 15–49) who, in the preceding 12 months, had sex with a non-marital, non-cohabiting partner (of all respondents reporting sexual activity in the preceding 12 months).

o — % of men (aged 15–59) who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who had sex with such a partner in the preceding 12 months. Before 2000, the definition used differed for some countries. Therefore, the values should be considered as indications of the risk level of the respective countries rather than comparisons of risk levels between countries.

p — % of women (aged 15–49) who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who had sex with such a partner in the preceding 12 months. Before 2000, the definition used differed for some countries. Therefore, the values should be considered as indications of the risk level of the respective countries rather than comparisons of risk levels between countries.

q — % of women (aged 15–49) who are aware that HIV can be transmitted from mother to child.

r — % of women (aged 15–49) who know where to get a HIV test.

s — Number of pregnant women infected with HIV.

t — % of women (aged 15–49) attended at least once during pregnancy by skilled health personnel ['skilled health personnel' includes only doctors, nurses and midwives; does NOT include traditional birth attendants (trained or untrained)].

u — Number of children (aged 0–14) whose mother, father or both parents have died due to AIDS (including those children who lost both parents and those who lost one parent to AIDS and the other parent due to another cause).

v — The ratio of children (aged 10–14) who lost both parents and are attending school to non-orphaned children the same age who are attending school (based on a household survey).

y — <20-year-old age group.

z — 15–24-year-old age group.

– — Approximately

[1, etc.] — Number of surveillance sites.

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Notes

The Joint United Nations Programme on HIV/AIDS (UNAIDS) is the leading advocate for global action on HIV/AIDS. It brings together eight UN agencies in a common effort to fight the epidemic: the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), the United Nations Population Fund (UNFPA), the United Nations International Drug Control Programme (UNDCP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO), the International Labour Organization (ILO) and the World Bank.

UNAIDS both mobilizes the responses to the epidemic of its eight cosponsoring organizations and supplements these efforts with special initiatives. Its purpose is to lead and assist an expansion of the international response to HIV on all fronts: medical, public health, social, economic, cultural, political and human rights. UNAIDS works with a broad range of partners—governmental and NGO, business, scientific and lay—to share knowledge, skills and best practice across boundaries.

Produced with environment-friendly materials

The Joint United Nations Programme on HIV/AIDS (UNAIDS) brings together eight United Nations system organizations. These UNAIDS Cosponsors are

unicef
United Nations Children's Fund

For 56 years, the United Nations Children's Fund (UNICEF) has been working with partners around the world to promote the recognition an fulfilment of children's human rights. This mandate, as established in the Convention on the Rights of the Child, is achieved through partnership with governments, nongovernmental organizations and individuals in 162 countries, areas and territories. It brings to UNAIDS this extensiv network and an effective communication and advocacy capacity. UNICEF's priorities in addressing HIV/AIDS include prevention among youn people, reducing mother-to-child transmission, care and protection of orphans and vulnerable children, and care and support for children, youn people and parents living with HIV/AIDS.

undp

As a development agency with strong country presence, the United Nations Development Programme (UNDP) promotes an enabling polic legislative and resource environment for an effective response to HIV/AIDS. Areas of work include: mobilizing actors and institutions we beyond the health sector to facilitate the social transformation needed to achieve a HIV-free future; promoting strong leadership and capaci for a coordinated and enhanced response; helping governments raise domestic and international resources; placing HIV/AIDS at the centre national development agendas; and promoting the rights of people living with HIV/AIDS through advocacy and legislation.

UNFPA
United Nations Population Fund

The United Nations Population Fund (UNFPA) applies its 30 years' experience in reproductive health to prevent HIV and sexually transmitte infections. Within 150 country programmes, UNFPA focuses on HIV prevention among young people, comprehensive condom programmes fo both male and female condoms, and prevention of infection among pregnant women. UNFPA supports: advocacy efforts; improving acces to information and education, including voluntary counselling and testing; strengthening capacity of service providers across sectors; an providing commodities for the prevention of HIV and sexually transmitted infections, such as STI/HIV test kits, male and female condoms an infection prevention and control supplies.

UNDCP
United Nations International Drug Control Programme

The United Nations International Drug Control Programme (UNDCP) is entrusted with exclusive responsibility for coordinating, and providin effective leadership for, all United Nations drug control activities. In this context, UNDCP actively supports HIV/AIDS prevention in programme to reduce the demand for illicit drugs. Its primary focus is on youth and high-risk groups. UNDCP operates from its headquarters in Vienna Austria, as well as from a field network currently serving 121 countries and territories.

ILO

The International Labour Organization (ILO) works to promote social justice and equality, set standards in employment, and improve workin conditions. ILO's particular contribution to UNAIDS includes: its tripartite membership, encouraging the mobilization of governments, employe and workers against HIV/AIDS; direct access to the workplace; long experience in framing international standards to protect the rights workers; and a global technical cooperation programme. ILO has produced a code of practice on HIV/AIDS and the world of work—a international guideline for the development of national and workplace policies and programmes.

UNESCO

Within the UN system, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has a special responsibility fo education. Since ignorance is a major reason why the AIDS epidemic is out of control, preventive education is at the top of UNESCO's agend The need for such education flows from the types of ignorance associated with HIV/AIDS, particularly in the most affected developing countrie most of those infected do not know it; there are widespread misconceptions about possible remedies; and there is sparse and unfounde knowledge about the disease itself, leading to prejudice and discrimination.

WHO

The World Health Organization (WHO) supports countries in strengthening their health systems' responses to HIV/AIDS and other sexuall transmitted infections. WHO promotes partnerships, provides technical and strategic support to countries and regions, and develops normativ guidelines and other resources on key health interventions, including prevention of mother-to-child transmission; management of HIV/AIDS sexually transmitted infections and related conditions, including use of antiretroviral therapy; blood safety; universal precautions; vaccin development; safe injection; voluntary counselling and testing; and interventions targeting vulnerable populations. WHO also contributes to th global HIV/AIDS knowledge base by supporting monitoring and surveillance, reviewing the evidence for interventions and promoting researc

THE WORLD BANK

The mandate of the World Bank is to alleviate poverty and improve the quality of life. Between 1986 and early 2002, the World Ban committed nearly US$2 billion for HIV/AIDS projects worldwide. Most of the resources have been provided on highly concessional term including US$1 billion under the Multi-Country HIV/AIDS Program (MAP) for Africa. To address the devastating consequences of HIV/AID on development, the Bank is strengthening its response in partnership with UNAIDS, donor agencies and governments. The Bank's respons is comprehensive, encompassing prevention, care, support, treatment, and impact mitigation.

Joint United Nations Programme on HIV/AIDS
UNAIDS
UNICEF • UNDP • UNFPA • UNDCP
ILO • UNESCO • WHO • WORLD BANK

Joint United Nations Programme on HIV/AIDS (UNAIDS)
UNAIDS - 20 avenue Appia - 1211 Geneva 27 - Switzerland
Telephone: (+41 22) 791 36 66 - Fax: (+41 22) 791 41 87
E-mail: unaids@unaids.org - Internet: http://www.unaids.org